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40 CFR PART 300 - NATIONAL OIL & HAZARDOUS SUBSTNACES POLLUTION CONTINGENCY PLAN

(U.S.) Environmental Protection Agency
Washington, D.C.

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NATIONAL OIL AND HAZARDOUS SUBSTANCES POLLUTION CONTINGENCY PLAN

(As published in the FEDERAL REGISTER
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U. S. Environmental Protection Agency
Office of Solid Waste and Emergency Response
Office of Emergency and Remedial Response
401 M Street, S.W.
Washington, D.C. 20460

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Arthur Weissman, Chief
Policy & Analysis Staff
Office of Program Management, OERR
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13. ABSTRACT *(Maximum 200 words)*

The NCP is the major freamework regulation for the Federal hazardous substance response program. The NCP includes procedures and standards for how EPA, other Federal agencies, states and private parties respond under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) to releases of hazardous substances and under the Clean Water Act to discharges of oil. These revisions clarify the 1985 NCP language, reorganize the 1985 NCP to describe more accurately the sequence of response actions, and incorporate changes based on program experience since the 1985 revisions to the NCP.

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 300
National Oil and Hazardous Substances Pollution Contingency Plan

AGENCY: Environmental Protection Agency.
ACTION: Final Rule.

SUMMARY: The Environmental Protection Agency (EPA) is today promulgating revisions to the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The Superfund Amendments and Reauthorization Act of 1986 (SARA) amends existing provisions of and adds major new authorities to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). Furthermore, SARA mandates that the NCP be revised to reflect these amendments. Today's revisions to the NCP are intended to implement regulatory changes necessitated by SARA, as well as to clarify existing NCP language and to reorganize the NCP to coincide more accurately with the sequence of response actions.

EFFECTIVE DATE: The final rule is effective 30 days after the date of this FEDERAL REGISTER notice. CERCLA section 305 provides for a legislative veto of regulations promulgated under CERCLA. Although INS v. Chadha, 462 U.S. 919, 103 S.Ct. 2764 (1983), cast the validity of the legislative veto into question, EPA has transmitted a copy of this regulation to the Secretary of the Senate and the Clerk of the House of Representatives. If any action by Congress calls the effective date of this regulation into question, EPA will publish notice of clarification in the FEDERAL REGISTER. The incorporation by reference of certain publications listed in the regulation is approved by the Director of the Federal Register as of ________.

ADDRESS: The official record for this rulemaking is located in the Superfund Docket, located in Room 2427 at the U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460, telephone number 1-202-382-3046. The record is available for inspection, by appointment only, between the hours of 9:00 a.m. and 4:00 p.m., Monday through Friday, excluding legal holidays. As provided in 40 CFR Part 2, a reasonable fee may be charged for copying services.

FOR FURTHER INFORMATION CONTACT: Tod Gold, Policy and Analysis Staff, Office of Emergency and Remedial Response (OS-240), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460, at 1-202-382-2182, or the RCRA/Superfund Hotline at 1-800-424-9346 (in Washington, DC, at 1-202-382-3000).

SUPPLEMENTARY INFORMATION: The contents of today's preamble are listed in the following outline:

I. Introduction

II. Response to Comments on Each Subpart (a detailed index is set forth at the beginning of this section)

III. Summary of Supporting Analyses

I. Introduction

Pursuant to section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, Pub. L. No. 96-510 (CERCLA or Superfund or the Act), as amended by section 105 of the Superfund Amendments and Reauthorization Act of 1986, Pub. L. No. 99-499, and Executive Order (E.O.) No. 12580 (52 FR 2923, January 29, 1987), the Environmental Protection Agency (EPA), in consultation with the National Response Team, is today promulgating revisions to the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR Part 300. Today's final rule is based on revisions proposed on December 21, 1988 at 53 FR 51394; approximately 160 commenters submitted specific comments on the FEDERAL REGISTER proposal, in writing as well as in testimony at four public hearings held in January 1989. Revisions to the NCP were last promulgated on November 20, 1985 (50 FR 47912).

For the reader's convenience and because the section numbers are being changed, EPA is reprinting the entire NCP, except for Appendix A (Uncontrolled Hazardous Waste Site Ranking System: A Users Manual), which is the subject of a separate rulemaking (see 53 FR 51962, December 23, 1988); and Appendix B (National Priorities List), which undergoes frequent updates by rulemakings (see, e.g., 54 FR 29820, July 14, 1989); and Appendix C (Revised Standard Dispersant Effectiveness and Toxicity Tests), for which only minor technical corrections were proposed. Also the "Procedures for Planning and Implementing Off-Site Response Actions," 40 CFR § 300.440, is the subject of a separate rulemaking and is not included in this notice. See proposed rule, 53 FR 48218 (November 29, 1988). Those sections of the NCP that are merely being repeated in this rule for public convenience, but for which no changes were proposed or comment solicited, are not the subject of this rulemaking and are not subject to judicial review.

All existing subparts of the NCP have been revised and several new subparts have been added. Furthermore, because the NCP has been reorganized, many of the existing subparts have been redesignated with a different letter. The reorganization of NCP subparts is as follows:

Subpart A - Introduction
Subpart B - Responsibility and Organization for Response

Subpart C - Planning and Preparedness
Subpart D - Operational Response Phases for Oil Removal
Subpart E - Hazardous Substance Response
Subpart F - State Involvement in Hazardous Substance Response
Subpart G - Trustees for Natural Resources
Subpart H - Participation by Other Persons
Subpart I - Administrative Record for Selection of Response Action
Subpart J - Use of Dispersants and Other Chemicals
Subpart K - Federal Facilities [Reserved]

Today's revisions to the NCP encompass a broad and comprehensive rulemaking to revise as well as restructure the NCP. The primary purpose of today's rule is to incorporate changes mandated by the Superfund Amendments and Reauthorization Act of 1986 (SARA) and to set forth EPA's approach for implementing SARA. SARA extensively revised existing provisions of and added new authorities to CERCLA. These changes to CERCLA necessitated revision of the NCP. In addition, EPA is making a number of changes to the NCP based on EPA's experience in managing the Superfund program.

The preamble to the December 21, 1988 proposed revisions to the NCP provided detailed explanations of changes to the existing (1985) NCP. The preamble to today's rule consists mainly of responses to comments received on the proposed revisions. Therefore, both preambles should be reviewed when issues arise on the meaning or intent of today's rule. Unless directly contradicted or superseded by this preamble or rule, the preamble to the proposed rule reflects EPA's intent in promulgating today's revisions to the NCP.

The preamble to today's rule responds to the major comments received on the proposed revisions, except as noted in the following paragraphs. In general, a separate discussion is provided for each proposed section on which comments were received; the discussions are organized as follows: a description of the "existing (1985) rule" and/or "proposed rule" is provided to aid the reader in understanding today's revisions; a summary of the comments received on each proposed section, and EPA's response to the comments, is then set out under the heading "response to comments;" and revisions made to proposed rule language are then set out under the heading "final rule." Revisions to the proposed rule that are simply editorial or that do not reflect substantive changes may not be described under the heading "final rule." In addition, citations have been updated or corrected, where appropriate.

More detailed explanations to comments received and responses to minor comments are set out in the "Support Document to the NCP," which is available to the public in the Superfund Docket, located in Room 2427 at the U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460.

A number of commenters on the proposal made statements relating to federal facilities, including suggestions for how Subpart K of the NCP should address their concerns. Issues raised by commenters included the applicability of the NCP at non-NPL federal facilities, state involvement at federal facilities, the role of federal agencies as lead agency at their facilities, and the applicability of the removal time and dollar limits to removal actions at federal facilities. These are important issues that EPA is considering in the development of the proposed Subpart K, which is the subject of a separate rulemaking. EPA will address these comments as well as additional comments received on the proposed Subpart K in the preamble and support document to the final rule on Subpart K.

Subpart K will provide a roadmap to those requirements in the NCP that federal agencies must follow when conducting CERCLA response actions where either the release is on, or the sole source of the release is from, any facility or vessel under their jurisdiction, custody, or control, including vessels bare-boat chartered or operated.

The preamble to the proposed NCP also announced that EPA was considering an expansion of the existing policy of deferring sites from inclusion on the National Priorities List (such as sites subject to the corrective action authorities of RCRA) to include deferral to other federal or state authorities, or CERCLA enforcement actions. A number of comments were received on this suggested policy expansion. EPA is still evaluating the issues raised by commenters and thus will not decide this policy issue at this time. Current policies with regard to what sites are appropriate for inclusion on the National Priorities List will remain in effect until further notice. Should EPA decide in the future to consider establishing an expansion to deferral policies, EPA will respond at that time to the comments received.

As part of a consent decree filed June 14, 1989 in Natural Resources Defense Council, et al., v. Reilly, C.A. No. 88-3199 (D.D.C.), EPA agreed to deliver to the FEDERAL REGISTER by February 5, 1990, for publication, final revisions to the NCP proposed December 21, 1988, reflecting the requirements of CERCLA section 105(b), as amended. With the publication of this final rule, the requirements of that consent decree are now fulfilled.

The regulation and the rest of the preamble use the term "CERCLA" to mean CERCLA as amended by SARA; the term "SARA" is used only to refer to Title III, which is an Act separate from CERCLA, and to other parts of SARA that did not amend CERCLA. The term "SARA" is used in this overview portion of the preamble, however, to highlight the changes to CERCLA.

A. Statutory overview

The following discussion summarizes the CERCLA legislative framework, with particular focus on the major revisions to CERCLA mandated by SARA as well as the provisions of E.O. No. 12580, which delegates certain functions vested in the President by CERCLA to EPA and other federal agencies. In addition, this discussion references the specific preamble sections that detail how these changes to CERCLA are reflected in today's rule.

1. Reporting and investigation. CERCLA section 103(a) requires that a release into the environment of a hazardous substance in an amount equal to or greater than its "reportable quantity" (established pursuant to section 102 of CERCLA) must be reported to the National Response Center. Title III of SARA establishes a new, separate program that requires releases of hazardous substances, as well as other "extremely hazardous substances," to be reported to state and local emergency planning officials. The preamble discussion of Subpart C summarizes Title III reporting requirements.

CERCLA section 104 provides the federal government with authority to investigate releases. SARA amends CERCLA section 104 to clarify EPA's investigatory and access authorities, explicitly empowering EPA to compel the release of information and to enter property for the purpose of undertaking response activities. Amended section 104(e) also provides federal courts with explicit authority to enjoin property owners from interfering with the conduct of response actions. SARA further amends CERCLA section 104 to specifically authorize EPA to allow potentially responsible parties (PRPs), under certain conditions, to conduct investigations. The preamble discussion of Subpart E details how today's rule reflects these revisions to CERCLA.

2. Response actions. CERCLA section 104 provides broad authority for a federal program to respond to releases of hazardous substances and pollutants or contaminants. There are two major types of response actions: the first is "removal action," the second is "remedial action." CERCLA section 104 is amended by SARA to increase the flexibility of removal actions. This amendment increases the dollar and time limitations on Fund-financed removal actions from $1 million and six months to $2 million and one year, and allows a new exemption from either limit if continuation of the removal action is consistent with the remedial action to be taken. (The existing exemption for emergency actions remains in effect.) SARA also amends CERCLA section 104 to require removals to contribute to the efficient performance of a long-term remedial action, where practicable.

In addition, SARA amends CERCLA section 104 to require that, for the purpose of remedial actions, primary attention be given to releases posing a threat to human health. (To this end, SARA also amends CERCLA section 104 to expand health assessment requirements at sites and to allow individuals to petition EPA for Toxic Substances and Disease Registry (ATSDR) for health assessments.)

Among the major new provisions added by SARA are CERCLA sections 121(a) through 121(d), which supplement sections 104 and 106 by stipulating general rules for the selection of remedial actions, providing for periodic review of remedial actions, and describing requirements for the degree of cleanup. These new sections codify rigorous remedial action cleanup standards by mandating that on-site remedial actions meet applicable or relevant and appropriate federal standards and more stringent state standards. Where the remedial action involves transfer of hazardous substances off-site, this transfer may only be made to facilities in compliance with the Resource Conservation and Recovery Act (RCRA) (or other applicable federal laws) and applicable state requirements, and at which releases from land disposal units are addressed.

Section 121 emphasizes a long-term perspective on remedies by requiring that long-term effectiveness of remedies and permanent reduction of the threat be considered and that the calculation of the cost-effectiveness of a remedy include the long-term costs, including the cost of operation and maintenance. The section mandates a preference for remedies that permanently reduce the "volume, toxicity, or mobility" of the hazardous substance, and requires that remedies use permanent solutions and alternative technologies or resource recovery technologies to the maximum extent practicable. The preamble discussion of Subpart E details how these revisions to CERCLA are reflected in today's rule.

3. **State and public participation**. New CERCLA section 121(f) requires the "substantial and meaningful" involvement of the states in the initiation, development, and selection of remedial actions. States are to be involved in decisions on conducting preliminary assessments and site inspections. States will also have a role in long-term planning for remedial sites and negotiations with potentially responsible parties. In addition, states are to be given reasonable opportunity to review and comment on such documents as the remedial investigation/feasibility study (RI/FS) and the proposed plan for remedial action. CERCLA also provides in section 121(e)(2) that a state is permitted to enforce any federal or state standard, requirement, criterion, or limitation to which the remedial action is required to conform.

CERCLA section 104(d) provides that a state, political subdivision thereof, or federally-recognized Indian tribe may apply to EPA to carry out the action authorized in section 104.

This section allows these entities to enter into cooperative agreements with the federal government to conduct response actions. SARA amends CERCLA section 104 to make it easier for states to enter into such cooperative agreements. The preamble discussion concerning Subpart F details how these revisions to CERCLA are reflected in today's rule.

SARA adds a new CERCLA section 117 to codify public involvement in the Superfund response process. This section mandates public participation in the selection of remedies and provides for grants allowing groups affected by a release to obtain the technical expertise necessary to participate in decision-making.

4. Enforcement. CERCLA sections 106 and 107 authorize EPA to take legal action to recover from responsible parties the cost of response actions taken by EPA or to compel them to respond to the problem themselves. SARA adds to CERCLA a number of provisions that are intended to facilitate responsible party conduct of response actions. CERCLA section 122, for example, provides mechanisms by which settlements between responsible parties and EPA can be made, and allows for "mixed funding" of response actions, with both EPA and responsible parties contributing to response costs.

SARA creates a new CERCLA section 310, which allows for citizen suits. Any person may commence a civil action on his/her own behalf against any person (including the United States and any other governmental instrumentality or agency, to the extent permitted by the eleventh amendment to the Constitution), alleged to be in violation of any standard, regulation, condition, requirement, or order which has become effective pursuant to CERCLA (including any provision of an agreement under section 120 relating to federal facilities). A civil action may also be commenced against the President or any other officer of the United States (including the Administrator of the Environmental Protection Agency and the Administrator of EPA for Toxic Substances and Disease Registry) where there is alleged a failure to perform any act or duty under CERCLA, including an act or duty under section 120 (relating to federal facilities), which is not discretionary with the President or such other federal officer, except for any act or duty under section 311 (relating to research, development, and demonstration). Section 310 requires that citizen suits be brought in a United States district court. CERCLA section 113(h)(4) provides that citizen suit challenges to response actions may not be brought until the response action has been "taken under section 104 or secured under section 106."

SARA amends CERCLA section 113 to require the lead agency to establish an administrative record upon which the selection of a response action is based. This record must be available to the public at or near the site. Section 113(j) provides that judicial review of any issues concerning the adequacy of any response action is limited to the administrative record. The preamble discussion of new Subpart I includes the introduction of administrative record requirements into the NCP.

5. Federal facilities. Section 120(a)(2) of CERCLA provides that all guidelines, rules, regulations, and criteria for preliminary assessments, site investigation, National Priorities List (NPL) listing, and remedial actions are applicable to federal facilities to the same extent as they are applicable to other facilities. No federal agency may adopt or utilize any such guidelines, rules, regulations, or criteria that are inconsistent with those established by EPA under CERCLA. (For purposes of the NCP, the term "lead agency" generally includes federal agencies that are conducting response actions at their own facilities.)

Section 120 also defines the process that federal agencies must use in undertaking remediation at their facilities. It requires EPA to establish a federal agency hazardous waste compliance docket that includes a list of federal facilities. EPA must within 18 months of enactment take steps to assure that a preliminary assessment is conducted at each facility and, where appropriate, evaluate these facilities within 30 months of enactment for potential inclusion on the NPL. Sections 120(a) and (d) clarify that federal facilities shall be evaluated for inclusion on the NPL by applying the same listing criteria as are applied to private facilities. Requirements governing listing are set forth in Subpart E of the NCP and in Appendix A (the Hazard Ranking System). Federal agencies must commence the RI/FS within six months of listing on the NPL and enter into an interagency agreement with EPA. Section 120(e) provides for joint EPA/federal agency selection of the remedy, or selection by EPA if EPA and the federal agency are unable to reach an agreement. CERCLA section 120(f) makes clear that state officials shall have an opportunity to participate in the planning and selection of the remedial action, in accordance with section 121.

B. Summary of significant changes from proposed rule

The following is a summary of the significant changes made to the proposed NCP in today's final rule. In Subpart A, several definitions have been revised, including "CERCLIS," " Superfund state contract," "cooperative agreement" and "source control action." Also, definitions for "navigable waters," "post-removal site control" and "source control maintenance measures" have been added.

In Subpart B, §§ 300.110 and 300.115 have been changed to provide that during activation of the National Response Team and the Regional Response Teams, the agency that provides the OSC/RPM will be the chair. In § 300.165, a deadline of one year for submitting an OSC report has been promulgated, not 90 days as proposed. The National Response Center has been added to the list of agencies described in § 300.175. No major changes were made in Subparts C and D.

In Subpart E, the final § 300.430 incorporates a new goal and expectations into the regulatory section on RI/FS and selection of remedy. Also, the categories for the nine criteria -- threshold, balancing and modifying -- have been removed from the detailed analysis section (i.e., detailed analysis does not distinguish among nine criteria) and placed in the remedy selection section. When using criteria for balancing in selecting remedies, emphasis is now placed on the criteria for long-term effectiveness and permanence and for reduction of mobility, toxicity or volume. Further, innovative technologies need only offer the potential to be comparable in performance or implementability to demonstrated technologies to warrant further consideration in the detailed analysis step.

Also in Subpart E, the acceptable cancer risk range in § 300.430(e)(2) has been modified from the proposed 10^{-4} to 10^{-6} to 10^{-4} to 10^{-6}. The 10^{-6} point of departure remains the same. Further, the proposed NCP stated that maximum contaminant levels (MCLs) generally would be the cleanup level for restoration of ground or surface water where they are relevant and appropriate under the circumstances of the release. In the final NCP, maximum contaminant level goals (MCLGs) that are set at levels above zero generally will be the cleanup levels where relevant and appropriate. Where MCLGs are set at levels equal to zero, the MCL generally will be the cleanup level where relevant and appropriate.

Other changes in Subpart E include the following: As set forth in the preamble to section 300.435, EPA will fund operation costs for temporary or interim measures that are intended to control or prevent the further spread of contamination while EPA is deciding on a final remedy at a site. In § 300.400(g) on ARARs, the factors used to determine whether a requirement is "relevant and appropriate" have been modified.

In the community relations sections, the rule is revised so that upon timely request, the lead agency will extend the length of 30-day public comment period on the proposed plan by a minimum of 30 additional days. The public comment period on non-time-critical removal actions will be extended, upon request, a minimum of 15 additional days. Also, the requirements during remedial action/ remedial design have been revised to now include issuing a fact sheet and providing an opportunity for a public briefing after completion of design.

In Subpart F, in a change to the proposed rule, a SMOA will not be a prerequisite in order for a state to recommend a remedy to EPA or for the state to be designated the lead agency for a non-Fund-financed response at an NPL site. Also, the proposed rule specified durations for review by the state of documents (e.g., RI/FS, proposed plan) prepared by EPA will now be applied as well to EPA's review of documents prepared by the state (i.e., when the state is the lead agency).

In Subpart G and in other subparts, clarifications were made on notification of and coordination with natural resource trustees. Also, the proposed requirement that the Secretary of Commerce obtain the concurrence of other federal trustees where their jurisdictions over natural resources overlap has been revised so that the Secretary of Commerce shall seek to obtain such concurrence. No major changes were made in Subparts H and I but several important clarifications are discussed in the preamble sections on these subparts. In Subpart J, the proposed rule required concurrence of Commerce and Interior natural resource trustees, as appropriate, on the use of dispersants, burning agents, etc. The final rule does not require such concurrence but encourages consultation with these natural resource trustees.

II. Response to Comments on Each Subpart

INDEX TO RESPONSE TO COMMENTS

Section numbers used in this index and in headings in preamble sections below refer to final rule section designations.

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Appendix C

Appendix D

SUBPART A -- INTRODUCTION

Subpart A, the preface to the NCP, contains statements of purpose, authority, applicability and scope. It also explains abbreviations and defines terms that are used in the NCP.

Name: Section 300.3. Scope.

Proposed rule: Proposed § 300.3 stated that the NCP applies to federal agencies and states and is in effect for discharges of oil into or upon the navigable waters of the United States and adjoining shorelines, and releases of hazardous substances into the environment, and releases of pollutants or contaminants which may present an imminent or substantial danger to public health or welfare.

Response to comments: A commenter suggested that § 300.3(a) of the proposed NCP should state that the NCP applies to private party responses as well as to federal agency and state responses, and the NCP should define the responsibilities of EPA and states for potentially responsible party (PRP)-lead response actions.

EPA has revised § 300.3(a) to eliminate the suggestion that the NCP applies only to cleanups conducted by federal agencies and states. EPA does not believe, however, that the roles or responsibilities of EPA or states during PRP-lead cleanups should be defined for the purposes of § 300.3(a). Rather, EPA prefers that these roles and responsibilities be negotiated and defined in site-specific enforcement agreements.

Final rule: Proposed § 300.3(a) is revised to read: "The NCP applies to and is in effect for:"

Name: Section 300.4. Abbreviations.

Final rule: Several abbreviations commonly used in the Superfund program have been added to § 300.4:

LEPC -- Local Emergency Planning Committee
NCP -- National Contingency Plan
RAT -- Radiological Assistance Team
SERC -- State Emergency Response Commission

Name: Section 300.5. Definitions.

Response to comments: Comments were received on several definitions. The comments and EPA's responses regarding revised and new definitions are included in the appropriate preamble sections, as indicated below. The revised or new definitions are found in the rule in § 300.5.

1. "Applicable" and "relevant and appropriate" are discussed in the ARARs preamble section.

2. "CERCLIS" is discussed in the preamble on 300.405.

3. "Cooperative agreement" and "Superfund state contract" are discussed in the preamble to Subpart F.

4. "On-site" is discussed in the preamble on § 300.400(e).

5. The definition for "navigable waters" used in 40 CFR 110.1 has been included in the NCP.

6. A new definition for "post-removal site control" is discussed in the preamble on § 300.415, "State involvement in removal actions." References to post-removal site control have been added to the definitions in § 300.5 of "remove or removal" and "remedy or remedial action."

7. "Source control action" and a new definition for "source control maintenance measures" is discussed in the preamble on § 300.435(f).

In addition, minor revisions were made to the following definitions:

1. Modifications to "National Priorities List" are discussed in the preamble to § 300.425.

2. In "operable unit," the last sentence has been deleted because it was not appropriate for a definition.

3. In "pollutant or contaminant," the reference to Subpart E was deleted because the definition applies to the use of the term throughout the NCP.

4. In "Superfund Memorandum of Agreement (SMOA)," the words "nonbinding" and "may establish" are used to emphasize the voluntary nature of a SMOA (see preamble to Subpart F). Also, a reference to "removal" has been added (see preamble to § 300.415).

5. In "United States," the term "Pacific Island Governments" is used instead of "Trust Territory of the Pacific Islands" (this revision is also made in §§ 300.105(d)(Figures 2 and 3) and 300.175(b)(9)(x)).

SUBPART B -- RESPONSIBILITY AND ORGANIZATION FOR RESPONSE

Subpart B describes the responsibilities of federal agencies for response and preparedness planning and describes the organizational structure within which response takes place. Subpart B lists the federal participants in the response organization, their responsibilities for preparedness planning and response, and the means by which state and local governments, Indian tribes, and volunteers may participate in preparedness and response activities. The term "federal agencies" is meant to include the various departments and agencies within the Executive Branch of the federal government. Subpart B should be distinguished from Subpart K (under preparation separate from this final rule), which deals specifically with site evaluation and remedial requirements for facilities under the jurisdiction of individual federal agencies.

The proposed revisions to Subpart B did not include major substantive changes; however, EPA did propose to combine existing Subparts B and C. The proposed Subpart B also presented key information in a logical sequence of response-oriented activities from preparedness planning through response operations. The listing of the capabilities of federal agencies with respect to preparedness planning and response was proposed to follow the sections relating to response operations.

The following is a discussion of comments submitted and EPA's responses on specific sections of proposed Subpart B. One change that has been made to the proposal throughout Subpart B is, where appropriate, to delete references to Executive Orders. Although Executive Orders are binding on agencies of the federal government, such references are unnecessary in a rule.

Name: Section 300.105. General organization concepts.

Proposed rule: Section 300.105 directs federal agencies to undertake specified planning and response activities and describes the general organizational concepts of the National Response Team (NRT), the Regional Response Teams (RRTs) and the on-scene coordinator (OSC)/remedial project manager (RPM). The proposal provided general descriptions of member agency responsibilities with respect to their participation in the NRT and the RRTs.

Response to comments: Many of the commenters appear to regard both the NRT and the RRTs as response rather than planning, coordinating, and support organizations. Another commenter wanted § 300.105(c)(1) edited to clarify the fact that the NRT/RRTs are policy and planning bodies that support the federal OSC, but that they do not coordinate responses. One commenter proposed dividing Figure 1 into two parts, one to show the NRT/RRT planning roles and the relationship between the NRT/RRTs and the State Emergency Response Commissions (SERCs) and the Local Emergency Planning Committees (LEPCs) and the other to illustrate the relationship between the NRT and the RRT during incident-specific situations. Another wanted § 300.105(d)(1) expanded to describe all three figures rather than only the first figure. Another noted that corrections are needed in the references to trust territories in Figures 2 and 3 (described in §§ 300.105(d)(2) and (3)).

The above comments make it clear that some clarification of the NRT/RRT roles in the national response system is needed. In response, text changes in the rule now indicate the policy, planning, coordination and response support roles of the NRT and the RRTs. Figure 1 (§ 300.105(d)(1)) shows the National Response System has been expanded to better indicate the relationships between the parts of the organization showing NRT, RRT, OSC and RPM, special teams, and the connections with state and local responders. Added lines indicate the activities of the NRT and RRTs including planning and preparedness as well as response support. Another added line indicates NRC policy guidance from the NRT.

Experience has shown that the standing RRTs cannot provide a useful forum for individual local governments on a continuing basis because the RRT responsibilities extend through a multi-state region and their regular meetings are only two to four times a year, and generally devoted to systemwide issues for the entire region, rather than site-specific issues. Local governments may and often do participate in such meetings where lessons learned from a particular incident are being discussed, for example. At the standing RRT level, then, the most effective way for local interests to be represented is through the state member. When an incident specific RRT action is needed, local interests on scene are represented in accordance with the local plans, including federal local plans, guiding the particular response. An essential purpose of the national response system is to ensure federal readiness to handle a response which might exceed local and state capabilities. Appropriate RRT/federal representation on multi-agency local response groups can provide a forum for a particular community, harbor area, or other geographic locality, comparable to what the RRT provides for the multi-state region.

One commenter wanted the NCP to include checklists of the specific tasks to be completed by each agency during a response and to identify who in each agency is supposed to carry out those tasks. In response EPA believes that detailed checklists of response tasks and persons responsible for those tasks belong in local response plans, not in the more general regional and national plans.

One commenter said that "extremely hazardous substances" should be added to the substances listed in § 300.105(a)(1). Extremely hazardous substances are defined in a separate section of the SARA statute, Title III. Although some extremely hazardous substances are CERCLA hazardous substances, most are not. On January 23, 1989, however, EPA proposed to designate the remaining extremely hazardous substances as CERCLA hazardous substances (54 FR 3388). This addition, when promulgated, will in effect mean that any reference to "hazardous substances" will implicitly include extremely hazardous substances.

Another commenter wanted to correct awkward wording in § 300.105(a)(4). The wording in § 300.105(a)(4) has been changed as indicated below.

Final rule: Proposed § 300.105 has been revised as follows:

1. Section 300.105(a)(4): "Make available those facilities or resources that may be useful in a response situation, consistent with agency authorities and capabilities."

2. Section 300.105(c)(1): "The National Response Team (NRT), responsible for national response and preparedness planning, for coordinating regional planning, and for providing policy guidance and support to the Regional Response Teams. NRT membership consists of representatives from the agencies specified in § 300.175."

3. Section 300.105(c)(2): "Regional Response Teams (RRTs), responsible for regional planning and preparedness activities before response actions, and for providing advice and support to the on-scene coordinator (OSC) or remedial project manager (RPM) when activated during a response. RRT membership consists of designated representatives from each federal agency participating in the NRT together with state and (as agreed upon by the states) local government representatives."

4. Revisions to Figures 1 through 3 have been made. The revised Figure 1 clarifies the response support or planning roles of the various entities and shows the planning relationships between the RRTs and the SERCs and LEPCs. It also clarifies that, apart from state and local participation in the RRT, the federal membership of the NRT and the RRTs is the same. Figures 2 and 3 have also been revised slightly to refer to Pacific Island Governments rather than Trust Territory of the Pacific Islands.

Name: Section 300.110. National Response Team.

Proposed rule: The proposed rule delineated the roles and responsibilities of the NRT, specified who will act as chair and vice-chair during activation for a response action, outlined the planning and preparedness responsibilities of the NRT, and discussed responses in general, to oil discharges and releases of hazardous substances, pollutants or contaminants. The organization of the National Response Center (NRC) was placed in the notification section, § 300.125.

Response to comments: A commenter suggested that more detail on the NRC organization be included in the final rule. EPA agrees that more descriptive language is needed but feels it is better placed in the section on notification and communications. These changes are discussed under § 300.125.

A commenter suggested that more information is needed on the specific duties of the NRT in an emergency, as well as a remedial action. After careful consideration, EPA believes that the roles and responsibilities of the NRT are addressed satisfactorily in §§ 300.110 and 300.175, and no changes are required. The NRT is activated in only a limited number of responses, and its activities then are usually carried out through communications between individual NRT member agencies with their RRT members in the field as needed to support the OSC or RPM. Since the NCP generally describes action tied to the response incident or site, and the NRT is generally not involved in actions on scene, NCP discussion of possible NRT activities is not necessary. The idea of a clearer pre-planned procedure for dealing with an event of catastrophic or national significance has been discussed, but decisions have not yet been made as to the form such protocols might take, when or if they are deemed to be needed.

Another commenter suggested that, in view of the limitation on United States Coast Guard (USCG) response authority following the 1987/1988 Department of Transportation (DOT)/EPA Instrument of Redelegation (May 27, 1988), the second sentence of § 300.110(b) would be more instructive if the chair of the NRT during activation was the agency providing the OSC/RPM.

EPA agrees. Who sits as chair or vice chair of the NRT will depend on which agency provides the OSC/RPM for the particular response action. It does not necessarily depend on "whether the discharge or release occurs in the inland zone or coastal zone." EPA has certain responsibilities for releases in the coastal zone. The second sentence in § 300.110(b) has been changed as recommended by this comment.

It was suggested that § 300.110(h)(3) further clarify who determines when it is necessary to activate the NRT. EPA believes that activation of the NRT is adequately described in § 300.110(j) and does not need to be outlined additionally in § 300.110(h)(3).

Final rule: The second sentence of proposed § 300.110(b) is revised as follows: "During activation, the chair shall be the member agency providing the OSC/RPM."

Name: Section 300.115. Regional Response Teams.

Proposed rule: This section delineates the roles and responsibilities of the Regional Response Team (RRT). For example, proposed § 300.115(b)(2) addressed the activation of the incident-specific RRT, and how the incident-specific RRT supports the OSC/RPM when the designated OSC/RPM directs and coordinates response efforts at the scene of the spill.

Response to comments: It was suggested that the NCP more clearly define the role of the RRT in the remedial program and require that regional and state remedial managers be informed of the assistance available from the RRTs. In response, EPA believes that the description of the roles and responsibilities of the RRT in § 300.115 provides the necessary framework for RRTs to support RPMs in the remedial program as they traditionally have supported OSCs. Upon notification and request, the RRT can function the same way for all response actions, whether they involve oil spill or hazardous material releases, and removal or remedial actions. Experience has not yet shown the need or usefulness of specific RRT actions in connection with the implementation of the remedial program as described in the NCP, while the flexibility exists for them to be involved if a need does arise.

One commenter suggested that this section should not indicate that the RRTs are response organizations, but that they are there to provide advice and assistance to the OSC, as necessary. In response, § 300.115 was not intended to portray the RRTs as response organizations. It indicates that they are the "appropriate regional mechanism for development and coordination of preparedness activities before a response action is taken and for coordination of assistance and advice to the OSC/RPM during such response actions." The proposed § 300.115(i)(7) indicated, however, that the standing RRT should "be prepared to respond to major discharges or releases outside the region." This may have been somewhat misleading, and has been changed to indicate that the RRT may provide "response resources" to major discharges or releases outside the region.

It was also recommended that the RRT support the designated OSC/RPM of the state response agency without assuming federal OSC direction and coordination of all other efforts at the scene of the release. EPA does not agree with this suggested comment to § 300.115(b). An essential purpose of the national response system is to ensure federal readiness to handle a response which might exceed local and state capabilities. That being so, the RRT would generally not be activated unless the federal government was needed as the lead in the response. In general, the authorities under which a federal agency operates require that commitments of federal resources and personnel be made through particular channels or command chains. Through specific memoranda of understanding, state OSC/RPMs could request certain kinds of federal assistance from individual agencies, but the RRT as a unit is designed to support a federal OSC in those situations where the size or nature of the response calls for a significant federal presence. (Experience shows that a federal OSC is on scene many times with no need to activate the RRT.)

Another commenter wanted the following language added to § 300.115(c): "If the RRT is activated upon the request of the state representative to the RRT, then the chair of the incident-specific RRT may be that representative if the members of the RRT so agree." EPA does not agree with the comments. Who sits as chair and co-chair to the incident-specific RRT depends on where the spill occurred and who provides the OSC/RPM, not who requests activation of the RRT. Certainly, the state representative will always be an active member of the incident-specific RRT when a spill occurs in the particular state, but the chair or co-chair will usually be the USCG or EPA representative.

Also suggested was the reconsideration of the extension of § 300.115(d) to allow for the participation of the Indian tribal governments on both the standing RRT and on incident-specific RRTs. Given that there are over 200 federally recognized Indian communities or groups in Alaska, participation by these entities on the same basis as the State of Alaska in the planning and coordination functions of the RRT is not administratively feasible. The comment stated that this provision should be modified to allow flexibility in determining how Alaska Native villages will be represented on the Alaska RRT.

EPA understands the commenter's concern as to the workability of a large number of Indian tribal governments participating in an RRT's activities. However, the 1986 amendments to CERCLA added several provisions for Indian tribal governments to be afforded the same opportunities as states. Indeed, CERCLA section 126(b) specifically states that "[t]he governing body of an Indian tribe shall be afforded substantially the same treatment as a state with respect to the provisions of...section 105 (regarding roles and responsibilities under the national contingency plan...)." It is consistent with that provision to include Indian communities in the national response system by having their jurisdictions recognized in the context of nationwide provisions for response activities. The proposed NCP language appeared to be the best way to allow interested Indian tribal governments to determine if the benefits of RRT membership would be such that they would be willing to undertake the responsibilities of RRT membership, or if there is an ad hoc basis, a planning project, or other basis on which an RRT-tribal relationship might be useful. In some regions, an existing inter-tribal or multi-tribal organization might provide appropriate representation. The language in the proposed rule was intended to afford these kinds of opportunities.

Furthermore, it was submitted that, for consistency, it would be much more effective to mandate local government involvement from the national level, rather than to rely upon each state. The comments state that due to the impact a local jurisdiction can experience from a hazardous substance release, it is imperative that local governments have the ability to participate on the RRT. EPA agrees that the impacts to a local government from a major release are substantial, but EPA does not agree that the local government should be mandated to participate in all RRT activities. The local governments may attend meetings and may actively participate in RRT functions through their state representative. The state representative is generally responsible for actively representing the interests of the local governments. If the state representative is performing his/her duties properly, all local governmental interests will be represented at RRT functions.

Also, it was suggested that RRT review of LEPC plans should be conducted only after the plans have been reviewed by the SERC, as required. EPA agrees that the RRTs will not be able to review and comment on every LEPC plan within their region. LEPC plans should be initially reviewed by the states, and if the state believes that the RRT should also review the LEPC plan, then the state should request such a review from the RRT.

One commenter wanted the phrase "or participation in" inserted after "conduct" in § 300.115(i)(8), noting that this would allow the state RRT representative/SERC the ability to request RRT participation, within allowable resources. EPA agrees that the phrase "or participate in" should be inserted after "conduct" in § 300.115(i)(8). This would give the RRT more flexibility in deciding whether it wanted to manage a particular exercise or training program or simply act as a participant.

Regarding § 300.115(j)(1)(i), one commenter raised the question of who decides when the OSC's/RPM's response capability is exceeded. This question does not need to be addressed in the final rule. The particular OSC/RPM will know when his/her response capability is going to be exceeded, and that information will be passed on to the RRT as soon as it is known. In addition, if the agencies on the RRT believe that the response capability to the OSC/RPM will be exceeded, then they also have the option of activating the RRT.

There was a request for clarification as to whether a pollution report satisfies the requirement for written confirmation of a request for RRT activation under § 300.115(j)(2). EPA responds that a written pollution report confirming the request to activate the RRT would satisfy the requirement; the pollution report is the primary means of providing information during the course of an incident. A request to activate the RRT should also be confirmed in a letter from another RRT representative.

Also, it was suggested that § 300.115(k) be expanded to address the contingency of what happens when a federal lead agency fails to perform its assigned role. The comment stated that if this situation occurs, the RRT should be notified and EPA or the USCG should assume the federal responsibilities.

In E.O. 11735 and E.O. 12580, the President has delegated certain functions and responsibilities vested in him by the CWA and CERCLA to various federal agencies. If federal agencies cannot perform their assigned tasks, such federal agencies may authorize another agency to perform the task through interagency agreement or contract. (See also preamble discussion below on § 300.130(a).)

Final rule: Proposed § 300.115 has been revised as follows:

1. The second sentence of § 300.115(c) reads: "When the RRT is activated for response actions, the chair shall be the member agency providing the OSC/RPM."

2. Section 300.115(i)(7): "Be prepared to provide response resources to major discharges or releases outside the region."

3. Section 300.115(i)(8): "Conduct or participate in training and exercises as necessary to encourage preparedness activities of the response community within the region."

Name: Section 300.120. On-scene coordinators and remedial project managers: general responsibilities.

Proposed rule: Consistent with the delegation of the President's response authority to the various federal agencies under Section 2(d)-(f) of Executive Order 12580, proposed § 300.120(b) specifies when federal agencies other than EPA or USCG shall provide OSCs and RPMs.

Response to comments: One commenter recommended that proposed § 300.120 be divided into two subsections. One subsection would discuss the responsibilities of an OSC and the other subsection would discuss the responsibilities of an RPM. In the commenter's view, the responsibilities of an OSC and an RPM do not overlap as much as was suggested in proposed § 300.120.

Another commenter recommended that a distinction be developed between actions where the OSC is in a monitoring role and actions where the response is undertaken using a federal funding mechanism such as the oil pollution fund established under CWA section 311(k) or the Hazardous Substance Superfund. The commenter stated that when the response action is federally funded, local responders "interpret the OSC's actions as tantamount to a command role."

In response, the NCP is intended to provide a framework within which response managers have the flexibility to use their best judgment, consonant with applicable law, regulation and guidance. In general, the role of the RPM parallels that of the OSC. Also, in general, the role of the OSC is the same whether or not the response action is federally funded. The roles as they are described in the current NCP are accurate, though not very detailed. EPA feels that the comments are well taken, and that it might be useful to have somewhat more detailed, separate descriptions of OSC and RPM responsibilities, and of any differences in OSC actions depending on whether the response is federally funded or funded by the responsible party. EPA has decided not to make such revisions in today's rule but will explore this matter with other federal agencies and will also consider developing guidance on this subject.

Another commenter pointed out that a state law may provide a fire chief with coordination authority over all on-scene officials, federal, state, and local, and inquired if the local fire chief's authority is superseded by proposed § 300.120. In addition, the commenter suggested that a conflict can be avoided if the authority to supersede the local fire chief's authority was clearly spelled out. Finally, the commenter recommended that § 300.120 be amended to permit the OSC to delegate his authority to a state or local official.

In response, the legal authority of the OSC to take action to respond to a discharge or release is section 311(c) of the Clean Water Act (CWA), 33 U.S.C. § 1321(c) or section 104 of CERCLA. To the extent that an action of a state or local official to direct response actions conflicts with actions under federal law to direct response, the federal law will prevail if there is federal participation in the response action. However, circumstances under which an OSC's authority is changed (local or state to federal, for example) should be spelled out in federal and local contingency plans, so that problems with conflicting authorities do not arise at the scene of a response action.

With regard to the recommendation that § 300.120 be amended to permit the OSC to delegate his/her authority to a state or local official, such delegation is allowed only to the extent authorized by law. There is no mechanism provided under the CWA for such a delegation. Section 104(d) of CERCLA, however, does permit certain agencies of the federal government to enter into contracts or cooperative agreements with a state to undertake, on behalf of the United States, actions authorized by section 104 of CERCLA. Finally, changing § 300.120 to clearly state that the federal OSC's authority supersedes the authority of the local fire chief is not necessary because § 300.120 states that the OSC "... directs response efforts and coordinates all other efforts at the scene ...."

Paragraph (a): One commenter recommended that the term "hazardous waste management facility" used in proposed § 300.120(a)(1) be defined since, according to the comment, it is unclear whether all facilities under the jurisdiction, custody or control of a federal agency are considered to be hazardous waste facilities. According to the comment, if all such federal facilities are "hazardous waste management facilities," the section should be amended to conform to E.O. 12580. The comment apparently relates to the following sentence in the proposed rule: "The USCG shall provide an initial response to the discharges or releases from hazardous waste management facilities within the coastal zone in accordance with DOT/EPA Instrument of Redelegation..."

The comment appears to assume that this section is intended to apply to all or many federal facilities as that term is used in section 120 of CERCLA. Instead, the NCP reference to "hazardous waste management facility" is to its very narrow meaning within the terms of the DOT/EPA Instrument of Redelegation (May 27, 1988) dealing with predesignation of Coast Guard and EPA OSCs. For this reason, it is not necessary to define this term in the NCP.

With regard to § 300.120(a)(2), another commenter recommended that the term "federally funded" be deleted and "Fund-financed" be inserted, because EPA's authority to undertake response actions with regard to releases from facilities or vessels owned, possessed or controlled by other federal agencies is limited by E.O. 12580. The recommended change is not necessary since proposed § 300.120(a)(2) provides for an exception to the general statement of EPA authority for facilities and vessels under the jurisdiction or control of other federal agencies. No change is necessary since the exception is consistent with Executive Order 12580.

Paragraph (b): One commenter recommended that § 300.120(b) be amended to indicate which agency would be responsible for providing OSCs and RPMs in the case of a release from a Coast Guard vessel. In addition, the commenter recommended that "emergencies" be defined in § 300.120(b)(2).

With regard to the first comment, in accordance with sections 2(e) and (f) of E.O. 12580, the Department of Transportation is responsible for providing OSCs and RPMs in the event of a release from a Coast Guard vessel. As written, proposed § 300.120(b)(2) stated that in the case of a federal agency other than the USCG, EPA, DOD or DOE, the federal agency involved shall provide the OSC or RPM. The final rule does not include the USCG in this § 300.120(b)(2) so that it is clear that the USCG will respond to a release from a USCG vessel.

Regarding the second comment, the preamble to the proposed rule provided a definition of the term "emergencies" for purposes of the delegations under E.O. 12580 (53 FR 51396). An additional definition in § 300.120(b)(2) is unnecessary.

Paragraph (c): One commenter stated that the Department of Defense (DOD) only have removal response authority for incidents involving DOD weapons and munitions. EPA agrees and has revised this section to state that DOD will have response authority for incidents involving weapons and munitions within the control, custody or jurisdiction of DOD.

Paragraphs (d) and (e): One commenter stated that while § 300.120(d) is supposed to describe the general responsibilities of OSCs and RPMs, it is primarily concerned with which federal agency will provide the OSC or RPM. EPA disagrees. In addition to specifying the agency that provides the OSC or RPM, § 300.120 also contains a description of the general responsibilities of OSCs and RPMs.

In order to further clarify the general responsibilities of OSCs and RPMs, EPA has added language to paragraphs (d) and (e) to make it clear that OSCs and RPMs are responsible for coordinating and directing responsible parties -- as well as agencies and contractors -- in their conduct of either federally financed or non-federally financed (e.g., enforcement) response actions. Under this authority, OSCs and RPMs may stop or redirect work if, in their judgment, it appears likely to result in a release or threatened release of hazardous substances into the environment or poses an imminent and substantial endangerment to human health, welfare or the environment.

Paragraph (f): One commenter stated that the role of the support agency coordinator (SAC) should not be limited to responding as requested by the OSC/RPM. Both the federal government and the state government should designate an OSC or RPM with parallel responsibilities. EPA believes that it is essential to have one person in charge and responsible for seeing that the response action proceeds expeditiously and, therefore, has not made this change.

Paragraph (g): Two commenters suggested that the NRT establish a curriculum for OSCs and RPMs and a certification process. In response, the NCP is not the appropriate mechanism for addressing this recommendation. The comments on this topic have been forwarded to the National Response Team for further action as it deems appropriate.

Final rule: Proposed § 300.120 is revised as follows:

1. The fourth sentence of § 300.120(a)(1) has been amended by adding the following: "... except as provided in paragraph (b) of this section."

2. The last sentence of § 300.120(a)(2) has been amended by deleting "except those involving vessels" and adding the following: "except as provided in paragraph (b) of this section."

3. Section 300.120(b)(2) has been revised by deleting "USCG."

4. Section 300.120(c) has been revised as follows: "DOD will be the removal response authority with respect to incidents involving DOD military weapons and munitions or weapons and munitions under the jurisdiction, custody or control of DOD."

5. EPA has added language to paragraphs (d) and (e) to make it clear that OSCs and RPMs are responsible for coordinating and directing responsible parties -- as well as agencies and contractors -- in their conduct of either federally financed or non-federally financed (e.g., enforcement) response actions.

Name: Section 300.125. Notification and communications.

Proposed Rule: The proposed NCP added the word "notification" to the title of this section, and moved its location to more accurately reflect its place in the response sequence. Both the title and the location change better reflect the importance of the National Response Center (NRC) in the national response system.

Response to comments: One series of comments cited potential confusion about notification procedures -- reporting of spills or releases -- to any place other than the NRC, since the proposed NCP, in various places, suggests such alternatives as notifying EPA or USCG OSCs directly when it is "not practicable" to reach the NRC. The commenter suggested that the NCP should clarify that reporting to the NRC is a provision in law, not an option. No matter how many other places a spill is reported, the notification must be made to the NRC by the person in charge of the vessel or facility, as soon as possible.

EPA agrees with these comments, but believes the language in § 300.125 is simple and direct, and makes clear the requirement for notice to the NRC. Two changes were made in notification language elsewhere in the rule, however, to emphasize the commenter's point. In Subpart D, § 300.300(b), and in Subpart E,

§ 300.405(b), identical changes were made to reinforce the requirement for reporting to the NRC regardless of other reports or notifications made. The operative sentences will now read: "If it is not possible to notify the NRC or predesignated OSC immediately, reports may be made immediately to the nearest USCG unit. In any event, such person in charge of the vessel or facility shall notify the NRC as soon as possible." (New language underlined.)

It was suggested that more places in the NCP should repeat the concept that whenever there is doubt as to the size or nature of a spill or release, or which reporting requirements are applicable, reporting to the NRC is encouraged. Although recognizing the potential for confusion, EPA believes that the rule should state the notification or reporting requirement as simply and directly as possible, in the proper sequence of actions delineated by the rule. Other methods, outside of rulemaking, should be found to make the industry and the general public aware of these responsibilities. Repeating the concept in various places with various different wordings has the potential for additional interpretations, which may be misleading. Some suggested language described which actions do not meet the requirements of the law. The final rule describes which actions do satisfy the statutory requirements.

Also, the commenter recommended that the tone and clarity of language on reporting requirements in the preamble to the proposed rule (53 FR 51401, third column) should be included in the rule itself. EPA believes that these two paragraphs are more appropriate in a preamble and is repeating them here because of their importance:

EPA reiterates that statutory and regulatory reporting requirements are still keyed to discharges of oil and releases of hazardous substances exceeding a reportable quantity (RQ). EPA is aware, however, that many notifiers do not have the training or knowledge to determine if there is an RQ of a substance involved in a release. Therefore, whenever there is any doubt about whether a release exceeds an RQ, EPA encourages that the release be reported to the NRC. Reporting ensures positive referral of every incident to each federal agency with jurisdiction and/or regulatory interest.

The NRC is tasked with processing all reports regardless of the material involved or the reported significance of the incident. All reports are passed immediately by telephone to the proper federal response entity and recorded in the NRC data base at the time of receipt. Public, government, industry, or academic requests for access to stored data may be made through a written Freedom of Information Act request to the Chief, National Response Center, 2100 Second Street N.W., Room 2611, Washington, DC 20593.

One commenter suggested that many people are not aware of the range of functions for which the NRC is responsible. After careful scrutiny, EPA has decided that not all the NRC functions are appropriately listed in a section covering on-scene action, the intent of § 300.125. However, the basic activities will be listed in a new entry in § 300.175, Federal agencies: additional responsibilities and assistance.

One commenter said that § 300.125(b) should not put the responsibility for the NRC facility/service on the Coast Guard as a requirement, since support for the NRC is a cooperative federal effort under Coast Guard lead. EPA agrees and has inserted the phrase "in conjunction with other NRT agencies," to this section.

One comment cited an error in the commercial phone number listed in the proposed NCP. EPA agrees; the correct telephone number is 202-267-2675.

__Final rule__: Proposed §§ 300.125, 300.300(b) and 300.405(b) are revised as follows:

1. Section 300.125(a) has been revised to more accurately describe the responsibilities of the National Response Center for notification and communications.

2. Section 300.125(b) has been amended by including the phrase "in conjunction with other NRT agencies."

3. Section 300.125(c) now includes the correct commercial telephone number for the NRC: 202-267-2675.

4. The last two sentences in §§ 300.300(b) and 300.405(b) now read as follows: "If it is not possible to notify the NRC or predesignated OSC immediately, reports may be made to the nearest USCG unit. In any event, such person in charge of the vessel or facility shall notify the NRC as soon as possible."

__Name__: Section 300.130. Determinations to initiate response and special conditions.

__Proposed rule__: Proposed § 300.130(a) authorized EPA or the USCG to respond to discharges of oil or releases of hazardous substances, pollutants or contaminants except with respect to such releases on or from vessels or facilities within the jurisdiction, custody or control of other federal agencies. This section also described requirements with respect to certain kinds of releases, e.g., radioactive materials.

__Response to comments__: __Paragraph (a)__: Several commenters commented that some federal agencies may be unable, due to lack of expertise, orientation, or funding, to respond to the threat of release or actual release of hazardous substances, pollutants or contaminants at their facilities. Accordingly, the commenters recommended that EPA and the USCG be given unrestricted response authority over releases, actual or threatened, at all federal facilities, except DOD and DOE facilities, and that federal agencies other than EPA, the USCG and, presumably, DOE and DOD should only be given lead agency authority if and when they meet certain minimum standards. One commenter stated that proposed § 300.130(a) does not specifically grant authority to a federal agency to initiate a response, and that the section should grant this authority. The commenter noted that the executive order delegating the President's authority under CERCLA grants this authority, and indicated that § 300.130(a) should reference the executive order.

In response, EPA disagrees with the commenter's suggestion that the USCG and EPA should retain unrestricted response authority over releases at federal facilities. In section 115 of CERCLA, Congress specifically authorized the President to "delegate and assign any duties or powers imposed upon or assigned to him" in the statute. By Executive Order 12580 (52 FR 2923, Jan. 29, 1987), the President delegated to federal agencies and departments the responsibility and authority for taking most response actions at non-NPL sites within their jurisdiction, custody, or control. (EPA believes that the explanation of these authorities in this preamble is sufficient, and need not be specifically repeated in the text of the rule.) Moreover, CERCLA section 120 makes clear that federal agencies are primarily responsible for the conduct of the RI/FS and remedial action at federal facility sites that are listed on the NPL. Amending § 300.130(a) of this rule to designate USCG and EPA as lead agencies for responses at federal facility sites would not accord with these mandates.

At the same time, it is important to note that federal agencies may request the services of the USCG or EPA on a reimbursable basis, and the NRT/RRT system provides for quick, appropriate communication of such requests. Experience to date has generally shown this to be adequate. A memorandum of understanding between a federal agency and EPA or USCG would also be possible to cover both required action and funding procedures, allowing for EPA and USCG to manage responses under certain predetermined circumstances.

Some commenters further recommended that federal agencies should be required to immediately notify the NRC and the appropriate RRT whenever the federal agencies are unwilling or unable to respond to a release.

In response, as a threshold matter, the federal agencies and departments are already required by section 103(a) of CERCLA to report all releases of reportable quantities of hazardous substances to the National Response Center. (Pursuant to section 103(a), the National Response Center notifies the Governor of each state whenever a report of a release is made with respect to that state.) In addition, with regard to federal facilities on the Hazardous Waste Compliance Docket (which includes releases for which a report is required under CERCLA section 103(a) and (c)), the federal agencies and departments are required to conduct a Preliminary Assessment ("PA"), after which EPA will evaluate whether the release should be listed on the NPL.

As to the specific suggestion of the commenter that federal agencies may be "unwilling or unable" to respond to certain releases, it is important to note that pursuant to CERCLA section 115 and E.O. 12580, the federal agencies and departments have been delegated the responsibility under CERCLA section 104 for evaluating and taking response actions, as necessary, for most releases that occur at non-NPL facilities within their jurisdiction, custody, or control (E.O. 12580, at section 2(d) and (e)). The federal agencies also have responsibilities for the conduct of response actions at NPL sites pursuant to CERCLA section 120. EPA does not believe that a separate reporting requirement is necessary to address those situations where the federal agency or department decides that a response action is not necessary.

In situations where a federal agency experiences some difficulty in responding to a release, it is the general practice of the agencies to contact one or more of the sister agencies that have special expertise regarding the contamination problem (e.g., the Department of Defense for munitions waste, EPA more generally). As discussed above, the agencies may request the assistance of EPA or the USCG on an emergency basis, or enter into a more general memorandum of understanding. Finally, federal facility releases are included on the Hazardous Waste Compliance Docket, and are then evaluated by EPA for possible inclusion on the NPL; thus, EPA will be aware of significant releases to which the federal agency or department has been unable to respond as those releases move through the evaluation process. In conclusion, it is unnecessary to require the federal agencies to provide special notice to the NRC as suggested by the commenter."

Paragraph (b): One commenter recommended that the first line of § 300.130(b)(1) be revised by deleting "any oil is discharged" and inserting "there is a discharge of oil." The recommendation is suggested on the grounds that the definition of "discharge" in Subpart A does not necessarily include the use of discharge as a verb. EPA does not agree with this comment.

The commenter pointed out that under section 104(a)(1) EPA, as the President's delegatee, is authorized to take response action when there is a release or threatened release of a pollutant or contaminant only if the release or threatened release may present an imminent or substantial endangerment to the public health or welfare. Therefore, the commenter recommended that proposed § 300.130(b)(2) be revised to conform to section 104(a)(1) of CERCLA. In response, although "pollutant or contaminant" is defined for purposes of the NCP to mean any pollutant or contaminant that may present an imminent and substantial danger to public health or welfare (see § 300.5), EPA has made the requested change for purpose of emphasis.

Final rule: Proposed § 300.130 has been revised as follows:

1. Section 300.130(a) has been revised to begin "In accordance with CWA and CERCLA,..."

2. Section 300.130(b)(2) has been revised to read: "Any hazardous substance is released or there is a threat of such a release into the environment, or there is a release or threat of release into the environment of any pollutant or contaminant which may present an imminent and substantial danger to the public health or welfare; or"

Name: Section 300.135. Response operations.

Proposed rule: This section describes the responsibilities of the OSC/RPM to direct response efforts and coordinate all other efforts at the scene of a discharge or release. This section provides that the first federal official is authorized to coordinate activities on-scene and to initiate, in consultation with the OSC, any necessary actions. This official may also initiate fund-financed actions as authorized by the OSC.

Response to comments: One commenter stated that while it is understood that specific response actions for every situation cannot be defined, guidance on how a response escalates from local to federal levels would be helpful. EPA believes that it is not practicable to provide specific guidance on how a response escalates from local to federal levels, due to the vast number of variables that are implicit in every spill scenario.

Referring to § 300.135(b), one commenter said that, regarding expenditures from the various federal funds, members of state pollution response agencies should be given the same scope of action as described in § 300.135(b) for the "first federal official" to arrive on scene. The commenter argued that state response personnel are knowledgeable of "first response" measures, as well as being familiar with basic cost documentation procedures. The commenter noted that existing EPA and USCG procedures are too cumbersome to allow negotiation of a cooperative agreement or contract in the initial hours of an emergency response operation.

EPA acknowledges the fact that state response personnel are knowledgeable of first response measures as well as basic cost documentation procedures. EPA and USCG procedures may be cumbersome in negotiating a cooperative agreement, but these procedures are necessary in order to maintain control of the two pollution funds. Under certain situations, the states can be reimbursed for their costs by the CWA 311(k) fund, in accordance with USCG rules for managing this fund.

Another commenter suggested that, for consistency, the authority of the first federal official to arrive at the scene of a release, which is discussed in § 300.135(b), should be discussed under § 300.130 with the other authorizations for the initiation of response. EPA disagrees. This discussion is more appropriate in 300.135(b), because it deals primarily with the coordination of response activities on scene by the first federal official.

One commenter indicated that, under § 300.135(d), states should be encouraged to enter into cooperative agreements for removals under section 311 of the CWA or under CERCLA. Although EPA supports the concept, it does not feel it is necessary to add it as a regulatory requirement. (See also preamble section below on state involvement in removal actions.)

Another commenter noted that the requirement or expectation under § 300.135(e) that RPMs will consult with the RRT should not be promulgated unless the relationship between RPMs, the NRT, and the RRT has been clarified. In response, the relationship between RPMs, the NRT, and the RRT during remedial actions generally parallels the relationship between OSCs, the NRT, and the RRT during removal actions. These relationships are described in §§ 300.110, 300.115, and 300.120.

One commenter stated that § 300.135(f) and the definition of support agency coordinator suggested that the concept of support agency only applies to CERCLA releases. If so, the reference to the OSC advising the support agency for oil discharges, should be deleted. EPA agrees. By definition, the support agency coordinator "interacts and coordinates with the lead agency for response actions under Subpart E of this part." There is no designation of the use of a support agency or support agency coordinator under the CWA.

In § 300.135(h), one commenter asked who defines "possible public health threat?" The commenter contended that although it is necessary to have some broad language, misunderstandings can be reduced by more definitive phrases.

The determination of a "possible public health threat" is made by the OSC/RPM in consultation with other appropriate agencies. EPA believes that § 300.135(h) appropriately addresses this point. This section specifically states that assistance is available from the Department of Health and Human Services (HHS) in making the determination of public health threats.

Under § 300.135(i), one commenter indicated that there should be a requirement that the name of the office designated by each federal agency to coordinate response should be submitted to the RRT for inclusion in the regional contingency plan (RCP) and to the OSC and State Emergency Response Commission (SERC) for inclusion in local contingency plans (LCPs) and Local Emergency Planning Committee (LEPC) plans.

EPA believes that it is important that this information be passed on to the RRT and local response agencies. However, it is not necessary to place this requirement in the NCP. If it was, EPA should require, through the NCP, every facility, vessel, etc., to provide the same information to the RRT and local response agency. Through their normal contingency planning process, this information should be readily available to the RRT and local response agencies.

A commenter noted that under § 300.135(m), it is not clear when it would be appropriate for an RPM to submit pollution reports to the RRT. In response, EPA wishes to clarify that the pollution reports described in § 300.135(m) are prepared for removal actions; thus, these reports are generally submitted by an OSC rather than an RPM. EPA has deleted the reference to "RPM" in this section.

Finally, it was commented that § 300.135(n), which requires that OSCs/RPMs inform public and private interests and consider their concerns throughout the response, does not address what kind of responses are being referenced. Also, this section should encourage appropriate public and private interests to become appropriately involved after the first notification and not to expect the OSC to keep them informed through updates.

In response, EPA believes that specifying the type and size of the incident response is not meaningful. All incident responses require some kind of communication between all public and private parties. Regarding the second part of the comment, EPA has no authority to require the public and private interests to contact the OSC for information. Keeping the appropriate interests informed by the OSCs/RPMs is simply a policy issue and represents good program practices.

Final rule: Proposed § 300.135 has been revised as follows:

1. In § 300.135(f), the words "discharges or" have been deleted.

2. Section 300.135(j) has been revised to read as follows (see preamble discussion on § 300.615 (notification)): "The OSC/RPM shall promptly notify the trustees for natural resources of discharges or releases that are injuring or may injure natural resources under their jurisdiction. The OSC or RPM shall seek to coordinate all response activities with the natural resource trustees."

3. In § 300.135(m), the reference to "RPM" has been deleted.

Name: Section 300.140. Multi-regional responses.

Proposed rule: This section discusses the procedures to follow in the event a discharge or release covers more than one jurisdictional area.

Response to comments: Commenters noted that § 300.140 should clearly state that the OSC responsible for the area in which the release originated is initially in charge. Changing OSCs can be accomplished after this point. EPA disagrees with the comments. Sections 300.140(a) and (b) clearly outline OSC/RPM responsibilities in spill situations when more than one area will be impacted.

Another commenter pointed out that, in reality, the border between regions or districts becomes a no-man's land in which neither wishes to respond. While there can only be one OSC, the other affected regions/districts should have a representative at the command post. EPA disagrees with this comment concerning command posts and, therefore, has not changed the NCP. At the time of the spill, a simple agreement between the two predesignated OSCs or RRTs can alleviate this problem.

Another commenter noted that the NCP should reflect the fact that more than one OSC can be designated if the area impacted extends for many miles. EPA disagrees. There should only be one OSC coordinating the response efforts. The OSC may, however, utilize a number of OSC representatives to handle the response efforts in the outlying sections of a large spill area.

Final rule: Proposed § 300.140(c) is revised to delete an inappropriate reference to EPA/USCG agreements.

Name: **Section 300.145. Special teams and other assistance available to OSCs/RPMs.**

Proposed rule: This section describes the special teams that are available to the OSC/RPM and the availability of the scientific support coordinator (SSC).

Response to comments: One commenter stated that there is no reason for the title of this section to be changed from "Special Forces" to "Special Teams." The change only diminishes the role of the special forces. EPA disagrees. The change does not diminish the role of the special teams. It merely places a title upon this group of specialized teams that is more commonly used (i.e., Strike Teams, Public Information Assist Teams, Environmental Response Teams).

Another commenter indicated that it may be appropriate to specifically identify the ATSDR Public Health Advisors and Emergency Response Branch in this section as a special resource available to an OSC, as their availability is not well advertised. In response, ATSDR's role is not the same as that of a team, which is a unit organized and specially prepared to respond on call. ATSDR has both specific authorities for response and special expertise which might be called upon by an OSC, and thus their role is like those of other NRT member agencies. These are outlined in § 300.170. Other means of highlighting their availability, more appropriate and effective than the suggested revision to the NCP, would be to ensure that ATSDR activities and availability are referenced in local plans and OSC plans.

A commenter stated that § 300.145(d) should define the capabilities of a SSC and include what they can be expected to provide to the OSC. In response, although the term SSC as used throughout the NCP implies a single individual, in the case of the National Oceanic and Atmospheric Administration (NOAA), this support is in fact provided by a team of experts, several of whom may be in the field at the same time. This section has been revised to reflect the capabilities of a SSC.

Another commenter stated that an OSC often requires more information than is available from the responsible party, the Technical Assistance Team (TAT), or the SSC. Provided that the responsible party is willing to pay for additional scientific support, the OSC should be allowed to utilize other scientific experts without opening federal accounts.

In response, the OSC is allowed to utilize other scientific experts without opening federal accounts, provided he/she can convince the responsible party to pay for them. In most situations, if a particular resource is needed by the OSC/RPM, the OSC/RPM will request that the responsible party fund the particular resources. If the responsible party refuses, then the only other option the OSC/RPM has is to fund the resource using federal monies.

One commenter recommended that the description of the EPA Radiological Assistance Teams (RATs) in § 300.145(f) should be moved to the general agency descriptions in § 300.175(b)(2) or deleted. If this reference is retained, the commenter stated that something should indicate how the Radiological Response Coordinator is to be contacted. In response, proposed § 300.145(f) stated that the EPA Office of Radiation Programs (ORP) maintains the Radiological Assistance Teams. This section also stated that the assistance of Radiological Assistance Teams can be obtained by contacting the Radiological Response Coordinator. However, it is not explicitly stated that the Radiological Response Coordinator is located and can be contacted in ORP. EPA will make the clarification by adding "...in the EPA Office of Radiation Programs" after "Radiological Response Coordinator." EPA believes that it is more appropriate to reference EPA's Radiation Program in § 300.145 rather than § 300.175 because the reference directly relates to providing assistance to the OSC/RPM.

Final rule: Proposed § 300.145 is revised as follows:

1. Section 300.145(d) has been revised to add the following sentence at the end of the section: "In the case of NOAA, SSCs may be supported in the field by a team providing, as necessary, expertise in chemistry, trajectory modeling, natural resources at risk, and data management."

2. In § 300.145(f), EPA has added "...in the EPA Office of Radiation Programs" after "Radiological Response Coordinator," in the next to last sentence.

Name: Section 300.150. Worker health and safety.

Proposed rule: Section 300.150 requires that each employer at response actions comply with the requirements of the Occupational Safety and Health Act of 1970, applicable state laws, and EPA regulations regarding worker safety and health. Section 300.150 applies to actions taken either by a responsible party or a lead agency and requires that there be an occupational safety and health program for the protection of workers at the response site.

Response to comments: One commenter recommended using the Incident Command System (ICS) concept as contained in the Occupational Safety and Health Administration (OSHA) rule to integrate response activities. In response, EPA notes that § 300.150(a) requires that response activities meet the requirements of 29 CFR 1910.120, Hazardous Waste Operations and

Emergency Response, promulgated by OSHA, including the ICS concept (section 1910.120(q)(3)(i)). Executive Order 12196 conveys the President's mandate that federal agencies comply with OSHA standards. State applicability is covered as described below. Routine hazardous waste operations do not require use of ICS. Thus, no change is needed in the rule, since if the situation warranted use of the ICS concept, it would already be covered within the 300.150(a) requirements of the NCP.

The responsibility for assuring worker safety and health at a response scene is that of the employer. This is stated expressly in proposed § 300.150(a)(and in final § 300.150(e)). One comment indicated some confusion as to this requirement, particularly regarding firefighters involvement during response actions. In response, worker safety and health during response activities is protected by the regulations cited in this section, whether the workers are employed by private employers, or federal, state, or local governments. Federal employees are covered by the OSHA standards, as stated above. State and local government employees in the 23 states and 2 jurisdictions which have their own OSHA-approved occupational safety and health plans are covered by the state standards which must be comparable to the federal standards. These states are Alaska, Arizona, California, Connecticut, Hawaii, Indiana, Iowa, Kentucky, Maryland, Michigan, Minnesota, Nevada, New Mexico, New York (for state and local government employees only), North Carolina, Oregon, Puerto Rico, South Carolina, Tennessee, Utah, Vermont, Virginia, Virgin Islands, Washington, and Wyoming. State and local government employees (such as firefighters) in the remaining 27 states (such as Ohio plus Guam and the District of Columbia) are subject to EPA regulations identical to OSHA standards for response action workers under section 126 of SARA and 40 CFR 311. The EPA rule will apply to firefighters by March 6, 1990 for emergency response (and September 21, 1989 for other relevant activities).

One commenter suggested that proposed § 300.150 be revised to state that the OSC should be alert to unsafe work practices and notify the regional OSHA office when such practices are observed. EPA agrees that the OSC may be in a position to observe unsafe work practices. However, no change is needed because EPA believes that since workplace safety and health conditions are the responsibility of the employer, unsafe practices should first be reported to the appropriate employer because the employer is in a position to make an immediate correction. If the condition remains uncorrected, it should be reported to the appropriate enforcement authority, whether it is federal OSHA, state OSHA, or EPA.

Further, highlighting a special responsibility for an OSC in this area carries additional implications -- if the OSC fails to notice the violation, the employer might see that as official approval of his practice. Also, in general, the NCP sets out an organization and framework for generally needed actions and responsibilities, within which the OSC has, and must have, latitude to exercise his judgment. No section of the plan lists all possible actions of an OSC, however exceptional.

One commenter noted that the National Contingency Plan (NCP) requires CERCLA actions to directly comply with OSHA standards (proposed § 300.150), rather than complying only to the extent those standards are "applicable or relevant and appropriate requirements" (ARARs) under CERCLA section 121(d)(2), 42 U.S.C. 9621(d)(2). The commenter questioned why OSHA standards should be treated differently from other federal statutes.

In response, there are two principal reasons for the treatment of OSHA standards as non-ARARs in the NCP. First, as discussed below, Congress appears to have intended that certain OSHA standards apply directly to all CERCLA response actions. Second, EPA believes that OSHA is more properly viewed as a employee protection law rather than an "environmental" law, and thus the process in CERCLA section 121(d) for the attainment or waiver of ARARs would not apply to OSHA standards.

However, before addressing those issues in more detail, review of the comment revealed an inconsistency in the manner in which OSHA standards are considered under the NCP. As the commenter notes, proposed NCP § 300.150 directly requires CERCLA actions to comply with certain OSHA standards (e.g., 29 CFR Parts 1910, 1926) (53 FR at 51489), while at the same time, the preamble to the proposed rule included most OSHA standards in EPA's list of potential ARARs (53 FR at 51448). This situation requires clarification, because requirements that are promulgated as part of the NCP are not evaluated for attainment or waiver as part of the ARARs process.

As a threshold matter, EPA believes that Congress intended certain OSHA standards (those for response action workers) to be always applicable to CERCLA response actions. Pursuant to mandates in CERCLA section 111(c)(6) and SARA section 126, the Department of Labor has promulgated regulations that apply directly to worker safety during hazardous waste operations and emergency response actions, including CERCLA actions:

> (a)... (1) Scope. This section covers the following operations ...: (i) Clean-up operations required by a governmental body, whether federal, state, local or other involving hazardous substances that are conducted at uncontrolled hazardous waste sites (including, but not limited to, the EPA's National Priority List (NPL), state priority list sites, sites recommended for the EPA NPL, and initial investigations of government identified sites which are conducted before the presence or absence of hazardous substance has been ascertained.

29 CFR 1910.120 (emphasis added). Thus, these regulations apply specifically to the response actions detailed in the NCP, and compliance with these standards is properly required in the text of § 300.150.

Other OSHA standards, however, are of general applicability and were not developed specifically for CERCLA response actions (e.g., OSHA Construction standards, Shipyard standards, Longshoring standards, etc.). EPA believes that these general OSHA standards are essentially workplace standards, designed to cover occupational exposures; they are properly viewed as requirements of a "federal environmental law," and thus do not come within the scope of ARARs under CERCLA section 121(d)(2).[1] Rather, like the requirements of other non-environmental laws, such requirements would apply of their own force, not through the CERCLA process. Thus, OSHA standards are no longer included on the list of potential ARARs. The final NCP package (§ 300.150) has been modified to reflect this approach, which EPA believes is consistent with both OSHA and CERCLA.

EPA does not believe that these changes will reduce compliance with OSHA standards at Superfund sites. The OSHA standards for response action workers will be met at every CERCLA site, and the more general OSHA standards will continue be met where they apply.

EPA notes that there are some standards in OSHA that set contaminant levels for the workplace (see 29 CFR Part 1910, Subpart Z, limitations on exposure to toxic and hazardous substances) that may also be relevant -- although not applicable -- to the determination of a cleanup level at a CERCLA site (due to the absence of other standards). In such a case, those standards mav be included among the requirements "To Be Considered" (TBCs).

In addition, the following changes were also made to proposed § 300.150. The statement that "the OSH Act requirements can be enforced, as appropriate, by the relevant federal or state agencies," has been removed from the final rule; although the statement is correct, it is more appropriate for a preamble discussion. Further on this point, EPA notes that although OSHA standards apply to the federal government by Executive Order, they are not independently enforceable against the federal government;[2] accordingly, NCP § 300.150(c) has also been revised to state that the lead agency should make OSHA programs available to response action employees, consistent with and to the extent required by 29 U.S.C. section 1910.120.

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[1] CERCLA section 121(d)(2) defines potential ARARs as the standards, requirements, criteria or limitations under "any Federal environmental law." Note that the 1985 NCP -- which did consider OSHA requirements to be ARARs -- defined ARARs as "requirements of Federal public health and environmental laws."

The revisions to this section do not reflect any reduced commitment for compliance with applicable safety and health requirements, or any reduced responsibility for private employers to comply with worker protection standards.

Final rule: Proposed § 300.150 has been revised to read as follows:

> (a) Response actions under the NCP will comply with the provisions for response action worker safety and health in 29 CFR 1910.120.
>
> (b) In a response action taken by a responsible party, the responsible party must assure that an occupational safety and health program consistent with 29 CFR 1910.120 is made available for the protection of workers at the response site.
>
> (c) In a response taken under the NCP by a lead agency, an occupational safety and health program should be made available for the protection of workers at the response site, consistent with, and to the extent required by, 29 CFR 1910.120. Contracts relating to a response action under the NCP should contain assurances that the contractor at the response site will comply with this program and with any applicable provisions of the OSH Act and state OSH laws.
>
> (d) When a state, or political subdivision of a state, without an OSHA-approved state plan is the lead agency for response, the state or political subdivision must comply with standards in 40 CFR Part 311, promulgated by EPA pursuant to section 126(f) of SARA.
>
> (e) Requirements, standards, and regulations of the Occupational Safety and Health Act of 1970 (29 U.S.C. 651 et seq.) (OSH Act) and of state laws with plans approved under section 18 of the OSH Act (state OSH laws), not directly referenced in subsections (a) through (d) of this section, must be complied with where applicable. Federal OSH Act requirements include, among other things, Construction Standards (29 CFR Part 1926), General Industry Standards (29 CFR Part 1910), and the general duty requirement of section 5(a)(1) of the OSH Act (29 U.S.C. 654(a)(1)). No action by

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[2] Federal Emp. for Non-Smokers' Rights v. U.S., 446 F.Supp. 181 (D.D.C. 1978), aff'd 598 F.2d 310 (D.C.Cir.), cert. denied, 444 U.S. 926.

the lead agency with respect to response activities under the NCP constitutes an exercise of statutory authority within the meaning of section 4(b)(1) of the OSH Act. All governmental agencies and private employers are directly responsible for the health and safety of their own employees.

Name: **Section 300.155. Public information and community relations.**

Proposed rule: This section stated that OSCs/RPMs and community relations personnel should ensure that all appropriate public and private interests are kept informed when an incident occurs. This section also stated that an on-scene news office be established to coordinate media relations and to issue official federal information on an incident.

Response to comments: A commenter noted that there are three types of media coverage during an emergency: newspapers, radio, and television. The comment suggested that television is most problematic to those responding to an incident and that this section did not address how to coordinate a response with televised coverage of the incident.

In response, EPA believes that the rule appropriately addresses the responsibility to provide information about an incident. It is not necessary or appropriate to include details in the NCP of different approaches to different media. In a separate effort, however, the NRT is considering additional guidance and support for incident specific response teams in implementing public information procedures.

Another commenter noted that the community relations requirements referenced in § 300.155 are all from Subpart E. The comment questioned whether any community relations requirements, other than those specifically stated in § 300.155, apply to responses to discharges of oil.

In response, § 300.155 appears in Subpart B, which is the basic responsibility and organization for response which underlies the entire NCP, thus including response to discharges of oil under Subpart D. The public information and community relations requirements outlined in 300.155 are those generally applicable to all responses, and generally sufficient for emergency or relatively short term response actions such as those encountered in oil responses as covered in Subpart D. Responses under Subpart E, however, include long term actions at hazardous waste sites, and for these, there are specific and detailed requirements for community information and involvement in decision-making over the course of a response which may include removal or remedial actions carried out over a considerable period of time. These community relations provisions might be applicable in a long term cleanup that followed an emergency release, hence the cross references linking the basic or minimal requirement to the more detailed program which is mandatory for long term responses, but optional for emergency or short term responses.

Final rule: EPA is promulgating the rule as proposed.

Name: **Section 300.160. Documentation and cost recovery.**

Proposed rule: Section 300.160 discusses the procedures for documentation of cost recovery for a response action. Section 300.160(a) states that an accurate accounting of federal, state or private-party costs incurred for response actions can be supported with an OSC report as required by 300.165 for all major releases and Fund-financed removals. Section 300.160(c) states that "Federal agencies are to make resources available, expend funds, or participate in response to discharges and releases under their existing authority," and adds, "The ultimate decision as to the appropriateness of expending funds rests with the agency that is held accountable for such expenditures" (53 FR 51490). Section 300.160(d) is a new section of the proposed NCP incorporating 1986 amendments to CERCLA that state that responsible parties are liable for the costs of any health assessment or health effects study conducted under the authority of CERCLA section 104(i). In addition, the preamble to the proposed NCP discussion of § 300.160(d) detailed the types of studies for which responsible parties are held liable (53 FR 51402).

Response to comments: Several commenters requested that EPA elaborate in the preamble discussion of § 300.160 on what are "standard EPA procedures for cost recovery" as stated in the proposed rule (53 FR 51490). One asked that EPA propose a list of guidance documents for cost recovery procedures. Another asked that EPA make available its list of standard cost-recovery procedures for public comment. Another asked that EPA circumscribe cost recovery to those studies which are determined to be appropriate or necessary. In a related comment, one group asked that the NCP clarify the scope of costs recoverable and recognize that OSC reports are a poor method of documenting those costs. This commenter asked for clarification on the involvement of the RRT or NRT in cost recovery activities for remedial actions, and an explanation given for their involvement. Another asked that § 300.160(a) apply to oil discharges.

Most comments summarized above requested discussion of procedures for and staff participation in cost recovery that more properly belongs in EPA guidance rather than in the NCP. The preamble to the proposed NCP discussion of section 300.160(d) detailed the kinds of studies that are eligible for cost recovery.

Including guidance documents in the NCP, or including information normally reserved for these guidance documents, would produce an unwieldy NCP, and require constant revision as Agency guidance and policy procedures change over time. In addition, EPA is developing a regulation that will provide for recovery of direct and indirect costs under CERCLA. That rulemaking will address the comments summarized above.

Oil discharges are not included under the provisions of § 300.160(a), but are referred, through § 300.160(b), to § 300.315, the documentation and cost recovery section of Subpart D. The cost recovery and documentation processes for oil discharges are, by intent, somewhat different from those for hazardous substance release responses. Including oil discharges under the provisions of § 300.160(a) would subject them to conflicting cost recovery and documentation provisions. In addition, oil spills are statutorily exempt from the provisions of CERCLA, and come under the authority of the CWA.

One commenter stated that granting power to authorize expenditure of federal funds to the agency responsible for the response action represented preferential treatment for federal agencies who are PRPs that is not extended to private parties.

In response, the purpose of § 300.160 is to describe authority for expenditures in cases where federal agencies assist in a non-federal response, such as a coastal oil spill where no federal lands are affected. Their activities may be a mix of activities which they are required to undertake under their own authorities, and activities which they undertake as requested in support of an OSC (or RPM). The latter activities may be reimbursed from the Fund, later to be reclaimed from the responsible party (PRP) by the Fund-managing agency. The commenter appears to misinterpret this section as applicable to situations when the federal agency is itself a PRP. It is not. If a federal agency were participating in a response for which it was the responsible party, no reimbursement from the fund would be allowed. These provisions are amply covered in the appropriate fund-management regulations. Thus, since there is no preferential treatment allowed or inferred for federal agencies over non-federal PRPs, no change is necessary.

Final rule: Proposed § 300.160 is revised as follows:

1. In § 300.160(a)(2), the cross-reference to § 300.165 in the last sentence is modified.

2. Proposed § 300.160(a)(3) is revised as follows (see preamble discussion on § 300.615 (notification)): "The lead agency shall make available to the trustees of affected natural resources information and documentation that can assist the trustees in the determination of actual or potential natural resource injuries."

Name: Section 300.165. OSC reports.

Existing rule: Section 300.40(a) of the existing NCP requires the OSC to submit to the RRT a complete report on a response action within 60 days after the conclusion of a response to a major discharge of oil, or a major hazardous substance, pollutant or contaminant release, or when requested by the RRT.

Proposed rule: Proposed § 300.165(a) required the submission of the OSC report within 90 days (rather than 60 days) of the conclusion of the response action or when requested by the RRT. Additionally, the RRT must review the OSC report and forward a copy of the report with the RRT's comments to the NRT within 30 days of receiving the OSC report.

Response to comments: **Paragraph (a)**: A commenter recommended that OSC reports be approved by EPA prior to distribution to the RRT. EPA notes in response that the NCP deals with the distribution of OSC reports for the purposes of the NRT/RRT/OSC national response system. The OSC reports may be used for individual agencies' own management information purposes as well, but a primary purpose of these reports is to allow prompt knowledge of lessons learned, frank discussion of any problems, and timely and effective consideration of improvements or cautions which need to be shared throughout the system. Pre-screening by EPA (or other agency providing the OSC in question) would impede the timeliness of such reports, and perhaps diminish the immediacy of concerns which are intended to be conveyed to other responders. Thus, no change has been made in response to this comment.

Another commenter recommended that the OSC distribute the OSC report to the state representative to the RRT. This change is unnecessary. The state representative to the RRT has access to such reports through the mechanism set up by each RRT to make OSC reports available to each member of the RRT. Therefore, the OSC would be duplicating the mechanism already created. In addition, there is no apparent reason why the state representatives should receive a copy of the OSC report directly from the OSC while the other members of the RRT receive a copy from the RRT.

One commenter stated that the OSC report deadline is unworkable because the vast differences between response actions and the degrees of complexity that they may entail dictate that varying amounts of time may be needed to complete an OSC report. Cost recovery actions, noted the commenter, may also dictate a specific deadline for report submission. The commenter also stated that the original intent of this requirement should be reexamined by the NRT and the RRT. To address these problems, the commenter recommended that after-action reports be required instead of OSC reports, and that no deadline for these reports be imposed on the OSCs. For those actions which are of significant size or nature, or at the request of the RRT or NRT, the commenter recommended that the OSC/RPM submit an executive summary which addresses the four existing requirements of the NCP. The commenter suggested that the deadline for this summary should be determined by the NRT or the RRT requesting it.

Recognizing that OSCs have extensive responsibilities and that response to discharges or releases is a higher priority than writing the OSC report, EPA proposed to extend the deadline for submission of the report from 60 days to 90 days after completion of the response. After considering the comments on this proposal, EPA agrees with the commenter that even this deadline for submission of the OSC report may be unworkable. Therefore, the final NCP now requires submission of the report within one year of the completion of removal actions or when requested by the RRT. EPA believes that the change provides needed flexibility while ensuring that RRTs are able to get reports sooner, if necessary. Although the deadline has been extended, EPA still expects that OSC reports will be written as soon as practicable. Generally, for removals of short duration (e.g., lasting less than 30 days), OSC reports should be available within six months of completion of the removal action because there is less to report.

EPA does not agree, however, that cost recovery actions need dictate the deadline for submission or the contents of the report. The purpose of the OSC report is to summarize the activities at the site and the lessons learned. It should be similar to the executive summary described by the commenter except that it should cover, briefly, all of the topics listed in § 300.165(b). Detailed information regarding day-to-day events may be found in the administrative record, the pollution reports, the site log book, and the OSC log book. At the completion of site activities, these information sources are maintained in the site file at the regional office. In the event a detailed review of site activities is necessary (e.g., for cost recovery purposes), the information can be obtained through the regional office. The OSC report should not attempt to include or duplicate all of this other information but rather should reference and summarize it.

One commenter stated that EPA should broaden this section to apply to situations other than "major" discharges or releases. In response, EPA does not agree that OSC reports should be required for every action that responds to a discharge or release. EPA notes, however, that § 300.165 provides that reports on response actions other than to major discharges or releases will be submitted when requested by the RRT.

One commenter noted that it is unclear why § 300.165 involves RPMs if it is limited to removal actions. In response, RPMs are referenced in § 300.165 because removal actions sometimes occur at NPL sites (e.g., a fire may have started at a site where a remedial action is planned or is being conducted); therefore, the RPM may actually submit the OSC report.

Paragraph (c): A comment relating to § 300.165(c)(1)(viii) noted that in the case of a large spill the damage assessment process will continue beyond the proposed 90-day time limit for submission of the OSC report. Therefore, the commenter states that § 300.165(c)(1)(viii) should include a "qualifying statement" concerning natural resource damage assessment activity. In response, EPA notes that the deadline for submitting OSC reports is now one year. Moreover, the OSC report need only observe that damage assessment activity is ongoing despite the conclusion of the response action. A qualifying statement, therefore, is not necessary.

One commenter argued that the OSCs should not comment on natural resource injuries or trustee activities. The commenter believed that OSCs lack expertise in natural resource fields and could inadvertently make statements that might affect trustee efforts to recover damages through litigation. The commenter wanted paragraphs (vii) and (viii) deleted from the OSC report format in 300.165(c)(1). Another commenter stated that the phrase "documentation shall be sufficient to provide...impacts and potential impacts to the public health and welfare and the environment" seems to imply that damage assessment is an OSC responsibility. The commenter argued that responsibility for this complicated process should rest with the federal trustees, not with the OSC. The commenter noted that this point should be clarified in the NCP.

In response to the commenters that expressed concern that OSCs would be commenting on natural resource injuries or conducting damage assessments of natural resources, EPA believes that the commenter misinterpreted the intent of this requirement. OSCs are simply documenting the notification to trustees of natural resource damage or potential damage and then listing any activities taken by the trustees at the site. EPA believes that it is an important component of the report and does not believe the requirement should be eliminated. However, EPA does find that the wording in §§ 300.165(c)(1)(vii) and (viii) may be misleading and has changed it in today's rule to more accurately reflect the stated intent.

A comment relating to §§ 300.165(c)(4)(iii) questioned if the OSC is required to comment on plans developed by LEPCs and SERCs under section 303 of SARA, and recommended that §§ 300.165(c)(4)(iii) be amended to make it clear that OSCs should only recommend changes if those plans are in conflict with the OSC plans. In response, EPA believes that §§ 300.165(c)(4)(iii) does not require review of all section 303 plans. The subsection requires the OSC to make recommendations relating to the section 303 plans "as appropriate." Such recommendations are only appropriate if the section 303 plans are inconsistent with the NCP, RCP or OSC plan since the OSC is not authorized by any statute or regulation to review section 303 plans. Accordingly, the recommended change seems unnecessary.

Final rule: Proposed § 300.165 is revised as follows:

1. The first sentence of § 300.165(a) has been changed from "Within 90 days after completion of removal activities...," to read: "Within one year after completion of removal activities...".

2. Section 300.165(c)(1)(vii) has been changed to read: "Content and time of notice to natural resource trustees relating injury or possible injury to natural resources."

3. Section 300.165(c)(1)(viii) has been changed to read: "Federal or state trustee damage assessment activities and efforts to replace or restore damaged natural resources."

Name: Section 300.170. Federal agency participation.

Proposed rule: Proposed § 300.170 described general responsibilities of federal agencies within the National Response System.

Response to comments: Under § 300.170, a commenter requested clarification of the responsibilities of federal agencies with respect to reporting of releases of hazardous substances, as compared to pollutants, or contaminants or discharges of oil, from facilities or vessels which are under their jurisdiction or control. EPA has revised this section to clarify the applicable reporting requirements.

Final rule: Proposed § 300.170(c) is revised as follows:

1. Section 300.170(c) has been modified as follows: "All federal agencies are responsible for reporting releases of hazardous substances from facilities or vessels under their jurisdiction or control in accordance with section 103 of CERCLA."

2. Section 300.170(d) has been added as follows: "(d) All federal agencies are encouraged to report releases of pollutants or contaminants or discharges of oil from vessels under their jurisdiction or control to the NRC."

Name: Section 300.175 Federal agencies: additional responsibilities and assistance.

Existing rule: 40 CFR 300.23. This section described federal agencies' capabilities and expertise related to preparedness planning and response, consistent with agency capabilities and legal authorities.

Proposed rule: The proposed revisions emphasized the leadership roles of EPA and the USCG, added the Nuclear Regulatory Commission to the list of federal agencies described, and revised and updated some the other agencies' capabilities and expertise.

Response to comments: **Paragraph (b)**: A commenter suggested adding language to § 300.175(b) regarding the staffing and administration of the National Response Center (NRC) by the USCG. It was also suggested to add to each of the other agencies' organizational roles, language concerning communication procedures and specialized services and funding for NRC operations.

In response, EPA has added a description of the capabilities and expertise of the NRC to § 300.175(b)(15). EPA does not agree, however, that it is necessary to add language regarding organizational roles, communication procedures, etc., to the descriptions of the other federal agencies. Section 300.175 provides a brief generalized description of individual agency's expertise in preparedness planning or response actions, consistent with their legal authorities and capabilities. It is not meant to cover specific details of completing these activities. Further, § 300.125 has been revised to read: "The Commandant, USCG, in conjunction with other NRT agencies, shall provide the necessary personnel, communications, plotting facilities, and equipment for the NRC." In addition, if specialized services are needed by a particular agency, this, along with any appropriate funding, should be handled by a memorandum of understanding.

A commenter recommended adding to § 300.175(b)(1), a reference to the Coast Guard's authority to enter into cooperative agreements pursuant to section 311(c)(2)(H) of the CWA or section 104(d) of CERCLA. EPA has added such language.

One commenter questioned whether entering into a contract or cooperative agreement with the appropriate state in order to implement a response action applies only to remedial actions. If not, the following statement is recommended: "Coast Guard OSCs should be included in negotiating agreements for emergency responses."

In response, provisions of Subpart B (and thus "negotiating agreements or contracts for response actions") generally apply to both removal and remedial actions; therefore, no change is necessary. As a practical matter, in the timeframe of an emergency response, or urgent need for a removal action, negotiating such an agreement for the particular event or place might take more time than the immediate situation allowed. Generic standing agreements for certain kinds of situations could be negotiated in advance. In general, however, proper contingency planning can meet mutually satisfactory emergency needs if state, local, and OSC plans show the same agreed-upon dispositions of resources and responsibilities and provide for appropriate levels of decision-making covering various kinds of incidents.

Under § 300.175(b)(3), it was recommended to add language to clarify EPA responsibilities to address the immediate short-term evacuations that are often the norm in hazardous chemical responses. EPA does not agree. This appears to be a specific responsibility which would be best handled in a FEMA policy or guidance document.

Under §§ 300.175(b)(4) and b(5), one commenter requested clarification of the specific responsibilities of Department of Defense and Department of Energy OSCs concerning releases of hazardous substances, pollutants, and contaminants, and discharges of oil. The responsibilities of OSCs from all federal agencies are the same, as described in § 300.120 and elsewhere in the NCP.

One commenter suggested that language be added to § 300.175(b)(4) to clarify that consistent with CERCLA section 120(e)(4)(A), the EPA administrator has the ultimate authority with respect to selecting remedial actions for DOD facilities on the NPL. While the suggested addition is correct, EPA does not believe this section is the appropriate place for it. This item will be adequately covered in Subpart K.

Another commenter suggested that EPA add language to § 300.175(b)(4) to identify the availability of Army Explosive Ordinance Demolition (EOD) units (for explosives, nerve agents, etc.). EPA believes that access to this expertise is limited by DOD authorities and should not be included.

Under § 300.175(b)(7), a commenter suggested a change to add a reference the capabilities of the Department of Commerce (DOC) with respect to National Marine Sanctuary ecosystems. EPA has made the suggested change.

Under § 300.175(b)(9)(i), a commenter suggested a change to clarify the responsibilities of the Fish and Wildlife Service. EPA agrees with the suggested change.

Under § 300.175(b)(10), a commenter recommended expanding the section to describe the Department of Justice's (DOJ) role in litigation and the information that DOJ needs to negotiate or pursue a court action. EPA does not agree with the proposed change because the NCP is not the appropriate document for this purpose.

Final rule: Proposed § 300.175 is revised as follows:

1. The following sentence has been added to § 300.175(b)(1): "The USCG may enter into a contract or cooperative agreement with the appropriate state in order to implement a response action."

2. Section 300.175(b)(7) has been changed to add a reference to the national marine sanctuary ecosystems.

3. Section 300.175(b)(9)(i) has been changed to read as follows: "Fish and Wildlife Service: anadromous and certain other fishes and wildlife, including endangered and threatened species, migratory birds, and certain marine mammals; waters and wetlands; contaminants affecting habitat resources; and laboratory research facilities."

4. Section 300.175(b)(15) has been added describing the capabilities and expertise of the National Response Center.

Name: Section 300.180. State and local participation in response.

Proposed rule: This section described general responsibilities of state and local governments for response activities.

Response to comments: **Paragraphs (a) and (c)**: Under § 300.180(a), a commenter suggested allowing each RRT to determine an appropriate number of seats to assign to each state within its jurisdiction. EPA disagrees with the suggested change. While it is recognized that states may assign tasks to a number of different state agencies, it is imperative to have one spokesperson for the state as the official representative on the RRT. As many state representatives as desired may attend the RRT meetings. Under § 300.180(a), a commenter recommended adding "OSC" in addition to RPM for state-lead response actions. EPA agrees with the recommended change.

Another comment asked two questions: under § 300.180(c), what is meant by facilities not subject to response actions under the NCP, and is this section consistent with § 300.3(a)(2). In response, EPA agrees that the two cited sections should be consistent, and is revising the language in § 300.180(c) to read: "For facilities not addressed under CERCLA..."

Paragraph (d): One commenter indicated that the NCP should enable federal facilities to issue cooperative agreements to states to carry out remedial investigation, feasibility study, remedial action and remedial design activities. It was suggested that § 300.180(d) be modified to provide for this. EPA recognizes that federal agencies may cooperate with states in completing federal facility response activities. This will be adequately covered in Subpart K and does not need to be included in this section.

Paragraph (e): Under § 300.180(e), a commenter recommended that state and local public safety organization response efforts should be consistent with containment and cleanup requirements in the NCP. EPA agrees and has made the recommended change.

Final rule: Proposed § 300.180 is revised as follows:

1. The first sentence of § 300.180(c) is revised to read: "For facilities not addressed under CERCLA...."

2. Section 300.180(e) has been changed as follows: "Because state and local public safety organizations would normally be the first government representatives at the scene of a discharge or release, they are expected to initiate public safety measures that are necessary to protect public health and welfare and that are consistent with containment and cleanup requirements in the NCP, and are responsible for directing evacuations pursuant to existing state or local procedures."

Name: Section 300.185. Nongovernmental participation.

Proposed rule: Proposed § 300.185, based on existing § 300.25, encouraged involvement by industry groups, academic organizations and others in response operations. This section also specified that contingency plans should provide for the direction of volunteers by the OSC or other federal, state or local officials.

Response to comments: A commenter suggested changing § 300.185 so that the OSC/RPM does not have the discretion to involve volunteers in on-site activities associated with hazardous substance response operations. EPA disagrees with this suggestion. This section provides adequate safeguards for the use of volunteer personnel, including restrictions from on-scene operations as necessary.

A change was suggested to make this section consistent with the authority of the scientific support coordinator (SSC) as stated in § 300.145(d)(2). EPA agrees and has made the change.

A commenter requested that the NCP further define strategies for dealing with cases involving multiple authorities. EPA disagrees with the recommended change. The situations involving multiple jurisdictions and authorities should be handled under the appropriate contingency plan, i.e., the RCP or OSC plan.

Final rule: The last sentence of proposed § 300.185(b) has been changed to read as follows: "The SSC may act as liaison between the OSC/RPM and such interested organizations."

SUBPART C -- PLANNING AND PREPAREDNESS

Historically, the NCP has provided for federal planning and coordination entities and for federal contingency plans. Although there has previously been no federal requirement for state and local planning, the NCP has always provided for coordination with such entities and plans where they exist. However, SARA Title III now requires the development of a state and local planning structure and local emergency response plans.

Title III provides the mechanism for citizen and local government access to information concerning potential chemical hazards present in their communities. This information includes requirements for the submission of emergency planning information, material safety data sheets and emergency and hazardous chemical inventory forms to state and local governments, and for the submission of toxic chemical release forms to the EPA. Title III also contains general provisions concerning local emergency response plans to be developed by local emergency planning committees (LEPCs), emergency training, review of emergency systems, trade secret protection, providing public access to information, enforcement, and citizen suits. Regulations implementing Title III are codified at 40 CFR Subchapter J. EPA will reference Title III and these regulations in Subpart C where appropriate.

The proposed NCP states that in developing OSC contingency plans, the OSCs shall coordinate with State Emergency Response Commissions (SERCs) and Local Emergency Planning Committees (LEPCs) affected by the OSC area of responsibility. The OSC plans shall provide for a well coordinated response that is integrated and compatible with all appropriate response plans of state, local and other non-federal entities, and especially with Title III local emergency response plans.

The following sections discuss comments received on the proposed Subpart C and EPA's responses.

Name: Section 300.200. General.

Existing rule: Subpart D - Plans (300.41). Subpart D of the 1985 NCP required, in addition to the National Contingency Plan (NCP), a federal regional plan be developed for each standard federal region, Alaska, and the Caribbean, and, where practicable, a federal local (i.e., OSC) plan also be developed. The purpose of these plans is coordination of a timely, effective response by various federal agencies and other organizations to discharges of oil and releases of hazardous substances, pollutants and contaminants in order to protect public health, welfare, and the environment.

Proposed rule: The equivalent section to Subpart D in the 1985 NCP, is found in Subpart C of today's rule. This subpart summarizes emergency preparedness activities relating to oil, hazardous substances, pollutants and contaminants; describes the federal, state, and local planning structure; provides for three levels of federal contingency plans; and cross-references state and local emergency preparedness activities under SARA Title III.

Response to comments: A commenter stated that the planning activities referred to in Subpart C apply to both oil and hazardous substances response activities, not to "hazardous chemicals and substances only" as provided in the proposed rule. EPA agrees with this commenter. As stated in the 1985 NCP, all federal, state, and local contingency plans must deal with emergency preparedness and response activities related to discharges of oil and releases of hazardous substances, pollutants, or contaminants.

Final rule: Section 300.200 is revised to read, "This subpart summarizes emergency preparedness activities relating to discharges of oil and releases of hazardous substances, pollutants, or contaminants..."

Name: Section 300.205. Planning and coordination structure.

Proposed rule: The SERC in each state is to establish local planning districts, appoint LEPCs, and supervise/coordinate their activities. The SERC must also establish information management procedures and appoint an individual to serve as the coordinator for the information.

Response to comments: A few commenters suggested that § 300.205(c) make reference to § 300.115(h) to ensure coordination of the RRT with the SERC. Section 300.205(b) references § 300.115 as the description of the RRT's responsibilities. Section 300.115(h) states that the state's RRT representative should coordinate with the SERC. Since it has already been stipulated that the RRT as part of their responsibility coordinate with the SERC, there is no need to reiterate that statement in § 300.205(c).

Final rule: EPA is promulgating the rule as proposed.

Name: Section 300.210. Federal contingency plans.

Proposed rule: This section describes the three levels of federal contingency plans and makes reference to Title III plans. See also general description in introduction above.

Response to comments: 1. SARA Title III. Several commenters suggested that all references to SARA Title III should be eliminated from the NCP in that SARA Title III establishes new, completely separate requirements to report to state and local emergency planning officials, which are totally unrelated to the CERCLA process. Another commenter, however, supported the complete incorporation and integration of Title III provisions with other notification, spill prevention and preparedness sections in the NCP. One commenter recommended that EPA make a clear distinction between the NCP preparedness activities and Title III requirements.

A major objective of both the NCP and SARA Title III is to increase public protection by developing response plans to deal with releases of oil and hazardous substances to the environment. Eliminating from the NCP all references to SARA Title III could lead to duplication of effort by federal, state and local governments regarding contingency planning. It could also cause confusion because the NCP would not provide a complete picture of the federal/state/local planning structure.

2. Clarification of coordination procedures. Some comments stated that the NCP should be revised to include procedures for coordinating emergency response planning amongst LEPCs, OSCs, RRTs and the NRT. EPA has considered this comment and is not including such language in the final rule. The NCP is not intended to be a detailed procedural guidance document and such coordination should be left to the discretion of the coordinating parties to provide greatest flexibility to address regional, state and local variations. Other guidance on planning and plan coordination is available, e.g. "Hazardous Materials Emergency Planning Guide," National Response Team, NRT-1 (March 1987), "Criteria for Review of Hazardous Materials Emergency Plans," National Response Team, NRT-1A (May 1988) and "Technical Guidance for Hazards Analysis," EPA, DOT and FEMA (December 1987), through the National Response Team (NRT) member agencies.

3. Natural resources trustees and DOD and DOE OSCs. A few commenters suggested that § 300.210 be expanded to require that natural resources trustees and DOD and DOE OSCs be identified. Section 300.210 states that "RCPs [Regional Contingency Plans] shall follow the format of the NCP and coordinate with state emergency response plans, OSC contingency plans, . . ." The NCP and OSC contingency plans stipulate that the trustees of natural resources, as well as DOD and DOE OSCs, should be identified. Therefore there is no need to further state that in § 300.210.

4. OSC jurisdictional boundaries. Another commenter stated that determining the OSC jurisdictional boundaries based on Title III district boundaries is not appropriate. EPA agrees. The language in the proposed NCP reads that "jurisdictional boundaries of local emergency planning districts . . . shall, as appropriate

be considered in determining OSC areas of responsibilities." Thus, the proposed NCP does not require the OSC jurisdictions to be based on Title III local planning district boundaries, and there will be no change in the final rule.

5. Coordination of RRT, OSC and LEPC plans. A few commenters feel that it would be burdensome for RRTs or OSCs to coordinate their plans with the Title III local emergency response plans. They feel the drafters of Title III local emergency response plans should ensure that their plans coordinate with the OSC and RRT plans.

Other commenters recommended that the RRT be encouraged to advertise the availability of copies of the RCP to local emergency planning committees. One commenter suggested that the state should ensure the coordination of local plans with the OSC plan. Another stated that the NCP should be revised to indicated that drafters of Title III local plans should coordinate their plans with federal plans, not the other way around. Finally, another commenter noted that, for consistency, procedures for a LEPC to submit a plan to the RRT for review should be included in § 300.215(d), and that these procedures should require submission through the SERC.

EPA considers the coordination of the OSC plans with the Title III plans to be important. OSCs must be knowledgeable of local response groups and their response capabilities in order to prepare reliable and useful plans and to respond to incidents in their districts. The jurisdiction of some OSCs may include several Title III local planning districts, and the OSCs must ensure that their plans do not conflict with, but complement the Title III plans. A few people commented that language should be added proposing that the Title III local planning committees coordinate their plans with those of the OSCs. Section 300.215(a) already includes such language.

EPA also believes that the coordination through the SERC of regional plans with the Title III plans, to the greatest extent possible, is fundamental to the planning process.

Final rule: Proposed § 300.210(b) is changed to add the following sentence before the last sentence: "Such coordination should be accomplished by working with the SERCs in the region covered by the RCP."

Name: Section 300.215. Title III local emergency response plans.

Proposed rule: See general description in introduction above.

Response to comments: A commenter stated that § 300.215 should be revised to include comments regarding non-catastrophic event response. EPA disagrees with this commenter since Title III addresses all releases, catastrophic as well as non-catastrophic. Section 304 of Title III requires the reporting of a releases in excess of a reportable quantity of a extremely hazardous substance or a CERCLA hazardous substance to the SERC, LEPC, and the NRC(where appropriate). These federal, state, and local officials will then respond to that report as appropriate.

Another commenter suggested that § 300.215 should be expanded to include procedures for a LEPC to submit a plan to the RRT for review. EPA has considered this comment and is making a revision in the final rule.

Final rule: Proposed § 300.215 is revised as follows:

1. Section 300.215(d) is revised to add the following last sentence: "This request should be made by the LEPC, through the SERC and the state representative on the RRT."

2. In the first sentence of § 300.215(e)(2), the phrase "to the SERC, LEPC and the local fire department" has been added.

Name: Indian tribes under Title III.

Proposed rule: The preamble to proposed Subpart A stated that EPA is proposing to include Indian tribes in the definition of "state," except for purposes of Title III, or where specifically noted in the NCP.

Response to comments: Several commenters disagreed with excluding Indian tribes from being treated like states under Title III. These commenters encouraged EPA to allow tribal participation in this program because if the tribes do not become involved as governments in emergency response planning, the potential for harm to the reservation population and environment increases. These commenters also mentioned that EPA should allow tribes to participate as governments in Title III programs because tribes can be an important link in emergency planning and could be important in planning the appropriate response actions. These commenters recommended that EPA use its discretion to allow tribal participation under Title III on a government-to-government basis. Indian tribes wishing to develop local planning structure and local emergency response plans should be allowed to participate in Title III planning on the same basis as states.

In response, EPA notes that on March 29, 1989 (54 FR 12992), EPA proposed that Indian tribes be the designated implementing authority for Title III on all lands within "Indian country" as defined in 15 U.S.C. 1151. When this proposed rule becomes final, Indian tribes will, by rule, be included in the definition of "state" for the purposes of Title III.

Final rule: There is no rule language on this issue.

SUBPART D -- OPERATIONAL RESPONSE PHASES FOR OIL REMOVAL

Subpart D contains only minor revisions to the existing Subpart E. The following sections discuss comments received on the proposed Subpart D and EPA's responses.

Name: **Section 300.300. Phase I -- Discovery or notification.**

Proposed rule: This section describes the ways in which an oil discharge may be discovered and requires that reports of all discharges be made to the NRC. Alternative notification to the appropriate USCG or EPA predesignated OSC or the nearest USCG unit is permitted if immediate notification to the NRC is not practicable. This section also requires that immediate notification to the NRC be included in regional and local contingency plans. Upon notification of an oil discharge, the NRC must promptly notify the OSC who, in turn, will proceed with the additional response phases outlined in this subpart.

Response to comments: One commenter asserted that the addition of the EPA predesignated OSC as a contact through the regional 24-hour emergency response telephone number is unnecessary and should be deleted. The commenter went on to say that a single, all encompassing notification system must be established in the NCP so the federal government can be efficient and effective in its response actions. The concept of a single point of contact for reporting all environmental incidents throughout the United States is well established under the FWPCA and CERCLA. According to this commenter, with one telephonic notification to the NRC, many responsible parties fulfill several federal regulatory reporting requirements. If a responsible party can telephonically call EPA's 24-hour emergency number, then why can they not simply call the NRC. The requirement to call EPA's 24-hour number simply confuses and complicates the reporting requirements.

While EPA agrees that there should be a single notification system for discharges of oil, EPA believes that it is important to make available reasonable alternatives for reporting oil spills that are limited to the rare circumstances where it is not possible to contact the NRC. Furthermore, it is the opinion of EPA that the condition, "if direct reporting to the NRC is not practicable," is not ambiguous. It should be emphasized that reporting to the USCG or EPA predesignated OSCs or the 24-hour EPA regional emergency response telephone number are interim measures, and all reports shall be promptly relayed to the NRC by the discharger.

One commenter recommended that the "notification" language used in Subpart D for Oil Removal (300.300 and in Subpart E for Hazardous Substance Response (300.405)) should be identical asserting that this will limit confusion and make reporting of incidents that are both oil and hazardous substance simple. The commenter added that there is no need for the oil industry to determine, before notification, whether a spill will be interpreted to fall within the petroleum exclusion and recommended new language for §§ 300.300 and 300.405. Another commenter recommended rewriting the Discovery or notification section to accurately reflect the notification requirements for different types of discharges as mandated by statute adding that the procedures that the NRC and OSC must follow should be separate from the requirements of the discharger so not to confuse the reader.

EPA believes that the notification provisions of Subparts D and E, as proposed, are consistent except for necessary differences driven by statutory and programmatic requirements. EPA also believes that the concept of a single point of contact for reporting all oil and hazardous substance spills is preserved. Therefore, in today's final regulation, § 300.300 remains largely unchanged from the proposed rule.

Final rule: The last two sentences in § 300.300(b) are revised as follows (see discussion in preamble section on § 300.125 on editorial revision to § 300.300(b)): "If it is not possible to notify the NRC or predesignated OSC immediately, reports may be made to the nearest Coast Guard unit. In any event, such person in charge of the vessel or facility shall notify the NRC as soon as possible."

Name: Section 300.305. Phase II -- Preliminary assessment and initiation of action.

Final rule: Proposed § 300.305(d) is revised as follows (see preamble section on § 300.615 (notification)): "If natural resources are or may be injured by the discharge, the OSC shall ensure that state and federal trustees of affected natural resources are promptly notified in order that the trustees may initiate appropriate actions, including those identified in Subpart G. The OSC shall seek to coordinate assessments, evaluations, investigations, and planning with state and federal trustees."

Name: Section 300.310. Phase III -- Containment, countermeasures, cleanup and disposal.

Proposed rule: This section requires that the OSC initiate defensive actions as soon as possible to prevent, minimize, or mitigate the threat to the public health or welfare or the environment. These actions may include controlling the source of the discharge; initiating salvage operations; deployment of physical barriers to deter the spread of the oil; and the use of chemical or biological countermeasures in accordance with Subpart J, to restrain the spread of the oil and mitigate its effects. This section directs the OSC to choose oil spill recovery and mitigation methods that are most consistent with protecting the public health and welfare and the environment. Sinking agents are specifically prohibited. This section requires that recovered oil and contaminated materials be disposed of in accordance with federal regional and local contingency plans.

Response to comments: A commenter noted that § 300.310(c) states that "oil and contaminated materials recovered in cleanup operations shall be disposed of in accordance with the RCP and OSC contingency plan and any applicable laws, regulations, or requirements." If the purpose of this paragraph is to require that the disposal of cleanup materials meet applicable or relevant and appropriate requirements (ARARs), the commenter recommended that ARARs should be substituted for "applicable laws, regulations, or requirements". Language similar to § 300.400(g) should then be added to aid in the identification of ARARs for oil removal.

The purpose of this paragraph is not to require that the disposal of oil-contaminated cleanup materials meet ARARs. Language that could be interpreted to the contrary inadvertently appeared in the preamble to the proposed regulation. ARARs, as required by CERCLA section 121, apply to remedial actions responding to releases of hazardous substances, the definition of which excludes "oil." CERCLA sections 101(14) and 101(33). The response to oil discharges is provided by section 311 of the Clean Water Act.

Final rule: EPA is promulgating § 300.310 as proposed.

Name: Section 300.315. Phase IV -- Documentation and cost recovery.

Proposed rule: This section requires the collection and maintenance of documentation to support actions taken under the CWA and to form the basis for cost recovery.

Final rule: Proposed § 300.315 is revised as follows:

1. The cross-references to the USCG Marine Safety Manual and 33 CFR Part 153 in the last sentence of § 300.315(a) are modified.

2. The following sentence is added to proposed § 300.315(c)(see preamble discussion on § 300.615)): "The OSC shall make available to trustees of the affected natural resources information and documentation that can assist the trustees in the determination of actual or potential damages to natural resources."

Name: **Section 300.320. General pattern of response.**

Proposed rule: This section describes, in general, the actions to be taken when a report of a discharge is received.

Final rule: The phrase "rehabilitating or acquiring the equivalent of..." has been added to § 300.320(b)(3)(iii) in order to be consistent with CWA section 311(f)(5).

Name: **Section 300.330. Wildlife conservation.**

Proposed rule: This section describes coordination of professional and volunteer groups to participate in waterfowl dispersal, collection, cleaning, rehabilitation and recovery activities.

Response to comments: A commenter suggested that the more encompassing term "wildlife" be used in this section rather than "waterfowl." EPA agrees and has made the change.

Final rule: EPA has revised proposed § 300.330 to use the term "wildlife" rather than "waterfowl."

SUBPART E -- HAZARDOUS SUBSTANCE RESPONSE

The Hazardous Substance Response subpart contains a detailed plan covering the entire range of authorized activities involved in abating and remedying releases or threats of releases of hazardous substances, pollutants, or contaminants. EPA is making major revisions to the hazardous substance response authorities included in the NCP. The revisions implement the 1986 amendments to CERCLA and incorporate additional requirements deemed necessary and appropriate based on EPA's management of the Superfund program. The NCP reorganizes the sections of the subpart to coincide with the general order of established procedures during response.

Specifically, EPA is expanding current § 300.62 on the state role into a separate subpart (new Subpart F), which incorporates the new state involvement regulations; the entire discussion now appears after Subpart E. EPA is also revising and reformatting current § 300.67 on community relations so that it is no longer a separate section but is incorporated into the other sections as appropriate. Furthermore, EPA is renaming and reorganizing the sections in Subpart E as follows:

§ 300.400 General.
§ 300.405 Discovery or notification.
§ 300.410 Removal site evaluation.
§ 300.415 Removal action.
§ 300.420 Remedial site evaluation.
§ 300.425 Establishing remedial priorities.
§ 300.430 Remedial investigation/feasibility study (RI/FS) and selection of remedy.
§ 300.435 Remedial design/remedial action, operation maintenance.

The following sections discuss major comments received on the proposed Subpart E and EPA's responses. Responses to other comments are included in the support document to the NCP.

SECTION 300.400. General.

Name: Section 300.400(d)(3). Designating PRPs as access representatives. Section 300.400(d)(4)(i). Administrative orders for entry and access.

Proposed rule: Section 300.400(d)(4)(i) provides that EPA or any appropriate federal agency, by the authority granted them in CERCLA section 104(e)(5), can issue an administrative order to secure entry and access to a site where the site owner does not give consent to entry or access. Section 300.400(d)(3) adds language that allows EPA to designate a PRP as its representative solely for the purpose of access, through CERCLA section 104(e), but only in cases where the PRP is conducting a response action pursuant to an administrative order or consent decree. This does not create liability in the federal government or limit EPA's right to ensure a proper remedial investigation/ feasibility study (RI/FS).

Response to comments: Most commenters expressed support for § 300.400(d)(3), authorizing the agency to designate a PRP as its representative for access to a site, and concurred that such designation would help ensure cooperative PRPs access to a site owned or operated by a recalcitrant PRP. Disparate comments were received on § 300.400(d)(4)(i). EPA received comments stating that PRPs should be provided access to Fund-lead and state-lead sites to allow them to conduct their own testing and sampling in order to respond knowledgeably to an EPA remedial action proposal or to prepare an adequate defense. One commenter suggested that PRPs should be afforded the same unrestricted access to a site that is afforded the lead agency. Another suggested that entry and access should be afforded any PRP that voluntarily conducts a response action, and not be contingent upon the PRP entering into a consent order or decree. A third suggested that the NCP distinguish between entry and access to abandoned hazardous waste sites and sites with active, operating businesses. They proposed limitations on entry and access by a lead agency and on the lead agency's ability to grant others entry and access to such ongoing commercial sites to prevent major disruptions of business. A final commenter proposed that DOD, as lead agency, should be granted the authority to deny state agents access to DOD vessels.

EPA opposes unrestricted access to a site by PRPs for several reasons. Unsupervised access, sampling and testing would present a potential health hazard to those on the site or residing near it. Unrestricted access could slow cleanup by disrupting authorized on-site activities. EPA further believes that the proper opportunity for access and sampling is afforded when PRPs are given the chance to conduct the RI/FS. Finally, a great deal of information about the site is already made available to PRPs and others through the administrative record for the site.

The statute makes no distinction between entry and access at abandoned sites and sites of operating businesses in conducting response actions. Protecting human health and the environment is EPA's first priority when it gains access to a site. Protecting private commercial and industrial enterprises from interruption may also be considered in certain circumstances where there is no effect on EPA's accomplishment of its primary purpose to protect human health and the environment. EPA has clarified this section, however, to make it clear that one or more PRPs, including representatives, employees, agents and contractors of PRPs may be designated as the lead agency's representative. EPA has also clarified that EPA or the appropriate federal agency may request the Attorney General to commence a civil action to compel compliance with a request or order for access.

Finally, the statute does not recognize the "uniqueness" of DOD's authority as a lead agency when granting site entry and access to any "state or political subdivision under contract or cooperative agreement" with EPA under CERCLA section 104(e)(1). Of course, the President may issue site-specific orders under CERCLA section 120(j) regarding response actions at Department of Defense or Energy facilities as necessary to protect national security.

Final rule: Proposed § 300.400(d) is revised as follows:

1. The language in proposed § 300.400(d)(2)(ii) on where the authority to enter applies is reordered.

2. Proposed § 300.400(d)(3) is revised to clarify that one or more PRPs, including representatives, employees, agents and contractors of PRPs, may be designated as the lead agency's representative.

3. Proposed § 300.400(d)(4)(i) is revised to state that EPA or the appropriate federal agency may request the Attorney General to commence a civil action to compel compliance with a request or order for access. Also, the phrase "or if consent is conditioned in any manner" is added to this section.

Name: Sections 300.5 and 300.400(e). Definition of on-site.

Proposed rule: Section 300.400(e) states that the term "on-site" for permitting purposes shall include the areal extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of the response action.

Response to comments: 1. Definition of on-site. Many commenters supported the proposed definition of on-site because it ensures flexibility in the design and construction of response actions, provides for expeditious cleanup of sites, and potentially provides significant cost savings. The commenters believed that the four alternative definitions described in the preamble were too restrictive and imposed various constraints on EPA that would delay and needlessly complicate actions at sites. One commenter noted that the RI/FS process, including the mandatory public participation aspects, is the functional equivalent of the permitting process. Another commenter requested that the permit waiver in existing NCP § 300.68 for actions under CERCLA section 106 be retained.

Other commenters generally supported the proposed definition but requested some modifications. Several questioned using "very" in the requirement that suitable areas adjacent to the site be in very close proximity to the contamination. Some suggested in its place the phrase "...which are both as close as practical to the contamination..." One commenter assumed that EPA was trying to establish a principle of practical effectiveness, i.e., that the area of contamination and the area in which response activities occur are sufficiently related in practice that they should be treated as one site under the permit exemption. This commenter requested further elaboration on this.

One commenter requested that the term "areal" be clarified to distinguish surface area from the atmosphere. Another requested that the definition should specifically mention that the permit exemption applies during investigations as well as implementation of the response action.

One commenter urged that the permit exemption not be applied to construction of new disposal units in previously uncontaminated areas. The commenter stated that it is good policy to discourage new units in uncontaminated areas. Other commenters recommended that on-site should include all areas affected by contamination, whether at a discrete location or through transport of contaminated soils or ground-water plume migration.

Some commenters supported the alternative interpretations described in the preamble to the proposed rule. Several commenters favored defining on-site as identical to a CERCLA facility. One commenter stated that this definition of on-site should provide that all treatment performed on-site refers to the entire facility, and is not limited to the specific operating unit or area of contamination. This commenter also recommended that the permit exemption be broadened to induce private parties to voluntarily implement the required CERCLA actions.

Another commenter favored defining on-site the same as CERCLA facility because Congress intended to limit unpermitted activities to on-site areas, not near-site areas. One commenter suggested combining the proposed definition with the alternative definition equating on-site to CERCLA facility. The commenter believed that this would be consistent with the use of these words throughout the NCP and with the statutory definition of facility.

One commenter protested that the scope of the proposed definition was too broad and beyond statutory intent. This commenter contended that the proposed definition enabled EPA to unjustifiably usurp state permit laws. The commenter requested that the definition of on-site be limited to the contiguous area having the same legal ownership as the actual site of the release but in no event should it extend beyond the areal extent of contamination. The commenter also argued that the statute provides that the permit exemption applies only after a remedy is selected in accordance with section 121. The commenter also requested that if the proposed language in § 300.400(3)(1) is retained, the language "on-site...shall include..." should be modified to read "on-site...means." The commenter believed that the proposed language was over-expansive.

Another commenter generally supported the proposed definition but requested that EPA clarify that the scope of "on-site" for permitting purposes can differ from the geographical area covered by the affected site. The commenter stated that the scope of the affected site for purposes other than permitting is limited to the property owned or controlled by the site owner or operator in almost all situations. The commenter was concerned that too broad an interpretation of the affected site could effectively limit the value, transferability and use of adjacent property.

One commenter requested clarification on the applicability of the on-site permit exemption to all classes of non-NPL hazardous substance sites. The commenter also asked that the NCP clarify that the exemption does not apply to RCRA permits and HSWA corrective action requirements for solid waste management units.

In response, EPA believes that Congress intended to expedite cleanups when it provided for the permit exemption in CERCLA. Requiring the Superfund program to comply with both the administrative requirements of CERCLA and the administrative and other nonsubstantive requirements of other laws would be unnecessary, duplicative and would delay Superfund activities. Today's action is consistent with that intent.

EPA disagrees with those commenters who assert that the definition of "on-site" in the rule is unnecessarily broad. For practical reasons discussed in the preamble to the proposed rule (53 FR 51406), on-site remedial actions may, of necessity, involve limited areas of noncontaminated land; for instance, an on-site treatment plant may need to be located above the plume or simply outside the waste area itself. EPA does not believe that including in the definition of on-site those areas "in very close proximity to the contamination" and "necessary for implementation of the response," is beyond the intent of Congress, or that it would allow the permit exemption in section 121(e)(1) to be used for activities that are that fundamentally different in nature from conventional on-site actions.

EPA believes that its proposed definition of on-site is sufficiently narrow so that the permit exemption is not abused yet flexible enough to provide for practical and expedient implementation of Superfund remedies. Thus, EPA will promulgate the language as proposed, except that it will delete the phrase "for permitting purposes" in order to make clear that the "on-site" definition is also relevant to the definition of "off-site" under CERCLA section 121(d)(3). EPA believes this change is necessary for the consistency of the CERCLA program, and for the proper functioning of CERCLA section 121(d)(3). In addition, as suggested by a commenter, EPA will change the language in § 300.400(e)(1) to be consistent with the definition of on-site in § 300.5 so that both will read that "on-site means the areal extent of contamination..." rather than on-site includes...."

Proposed section 300.400(e)(1) states that the permit waiver applies to all on-site actions conducted pursuant to CERCLA sections 104, 106, or 122; in effect, this covers all CERCLA removal and remedial actions (all "response" actions). However, a number of other federal agencies have inquired as to whether this language would reach response actions conducted pursuant to CERCLA sections 121 and 120. In response, EPA has made a non-substantive clarification of the applicability of the permit waiver in CERCLA section 121(e)(1) to include on-site response actions conducted pursuant to CERCLA sections 120 and 121.

The inclusion of actions conducted under CERCLA section 121 is basic, and reflects a literal reading of the statutory provision itself ("No ... permit shall be required ... where such remedial action is selected and carried out in compliance with this section"); indeed, the inclusion in section 300.400(e)(1) of sections 104, 106 and 122 is based in large part on the fact that remedial actions carried out under section 104 or 106 authority were selected under section 121 (the inclusion of those sections also stems from the reference to "removal actions" in CERCLA section 121(e)(1)). The addition of CERCLA section 120 simply recognizes that the permit waiver applies to federal facility cleanups conducted pursuant to CERCLA section 120(e), which are also selected and carried out in compliance with CERCLA section 121 (see CERCLA section 120(a)(2)).

In response to other comments, EPA intends that "areal" refer to both surface areas and the air above the site. EPA further intends that the exemption apply to all CERCLA activities, including investigations and CERCLA section 106 actions, conducted entirely on-site, before and after the remedy is selected. EPA generally agrees with the policy of not locating new disposal units in uncontaminated land and will only do so when the only practical method for reducing the risk posed by the contamination is to construct a unit in very close proximity to the contamination. The example described in the preamble to the proposed rule was contamination located in a lowland marshy area. When it is not possible to locate an incinerator or construction staging area in that marshy area, it may be located in an uncontaminated upland area in very close proximity and still fall within the exemption.

Commenters supporting the alternative definitions have not persuaded EPA that they offer significant advantages over the proposed definition. As stated in the preamble to the proposed rule, the problem with equating on-site with the CERCLA definition of "facility" is that a CERCLA facility is limited to the areas of contamination; it does not include adjacent areas necessary for implementation of response activities.[3] On the other hand, a "facility" as defined under RCRA (i.e., the property boundaries) may be too expansive for purposes of the permit exemption, as it may encompass many square miles, with discrete areas of contamination rather than contamination throughout. EPA believes that the permit exemption should not apply to activities at a site not directly related to responding to the contamination. Alternatively, the RCRA definition may be too narrow where the contamination crosses property boundaries. Also, defining on-site as the area having the same legal ownership as the primary contaminated area may not be useful when a ground-water plume has travelled a considerable distance away from the source of contamination. As the preamble to the proposed rule noted, such a definition may artificially constrain a remedy because the exemption would be defined in terms of a property line rather than the contamination.

Finally, EPA believes that Congress intended that activities conducted entirely on-site pursuant to CERCLA are exempt from all federal, state or local permits, including permits under RCRA and HSWA. A RCRA permitting requirement would present the same possibility of delay as any other permit. This permit exemption does not apply, however, to cleanup actions conducted under an authority other than CERCLA, such as RCRA or HSWA.

2. Noncontiguous facilities. The preamble to the proposed rule also stated EPA's interpretation that when noncontiguous facilities are reasonably close to one another and wastes at these sites are compatible for a selected treatment or disposal approach, CERCLA section 104(d)(4) allows the lead agency to treat these related facilities as one site for response purposes and, therefore, allows the lead agency to manage waste transferred

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[3] EPA does not believe that the definition being promulgated today is inconsistent with the statutory definition of "facility" in CERCLA section 101(9). First, Congress did not use the term facility, but rather used the term "on-site," in CERCLA section 121(e)(1). Second, the definitions are not in conflict; the on-site definition is simply broader in order to allow EPA to effectuate the cleanup of "facilities" defined in the statute. (Note that the size or extent of a facility listed on the NPL may be broader than the description in the original NPL listing package, and may extend to those areas where the contamination in question has "come to be located." See CERCLA section 101(9); 54 FR at 41017-18 (October 4, 1989); 54 FR at 13298 (March 31, 1989); United States v. Conservation Chemical Co., 619 F. Supp 162, 177, 185 (W.D. Mo. 1985).)

between such noncontiguous facilities without having to obtain a permit (53 FR 51407). EPA requested comment on whether to limit this approach to situations where the noncontiguous facilities are under the ownership of the same entity. Several comments were received on EPA's proposal on noncontiguous facilities.

Some commenters requested that this proposal be expanded to include groups of sites that are not in close proximity to one another. One commenter requested an expansion to encompass large federal facilities with several discrete areas of contamination that are similar in nature but within boundaries that are spatially separated.

In response, the preamble to the proposed rule noted it may be appropriate to treat noncontiguous facilities as one site where the facilities are "reasonably close to one another" and the wastes are "compatible for the selected treatment or disposal approach" (53 FR 51407). However, the preamble specifically noted that these two factors were merely "among the criteria" EPA uses to decide whether noncontiguous facilities should be treated as one site. In some cases, the distance between facilities may be the deciding factor; in other cases, the consideration of distance may be outweighed by other criteria. Moreover, the "reasonably close" language in the proposal leaves room for Agency discretion; EPA recognizes that what may be a reasonable distance under some circumstances (e.g., in a sparsely populated area) may be less reasonable under others (e.g., in an urban setting). EPA makes these assessments on a case-by-case basis. EPA does not believe that the policy needs to be expanded in response to the comments on distance between areas of contamination; rather, the comments indicate that the policy needs to be more fully explained.

CERCLA section 104(d)(4) allows EPA broad discretion to treat noncontiguous facilities as one site for the purpose of taking response action. The only limitations prescribed by the statute are that the facilities be reasonably related "on the basis of geography" or "on the basis of the threat, or potential threat to the public health or welfare or the environment."[4] Once the decision is made to treat two or more facilities as one site, wastes from the several facilities could be managed in a coordinated fashion at one of the facilities and still be an "on-site" action, within the permit waiver of CERCLA section 121(e)(1).

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[4] Note that facilities may be aggregated for Fund-financed remedial response (as compared to removal or enforcement response) only if both facilities have been listed on the NPL. (See final rule section 300.425(b)(1).)

In evaluating the appropriateness of aggregating two facilities, EPA evaluates one or both of the statutory criteria. The threshold issue is generally whether the two facilities are "related based on the threat posed," such that it makes sense under CERCLA to treat two or more contamination problems as one; the criterion of "waste treatment compatibility," discussed in the proposal, is one measure of this. For example, where wastes at two CERCLA facilities are similar or identical, and are appropriate for like treatment or disposal, it may be both protective of health and the environment and cost-effective to treat the two facilities as one site, and to take a coordinated response action. The treatment facility built on-site at the first facility (which would not need a permit pursuant to CERCLA 121(e)(1)) could then accept wastes from other contaminated areas "on-site" -- i.e., from the second facility -- without the need for a permit. This allows response actions to proceed expeditiously and cost-effectively.

The analysis of whether facilities that are "related based on the threat posed" should be aggregated may, in appropriate cases, also consider the distance between the facilities, especially where transportation risks are high (such as for highly volatile wastes or for transfers through heavily populated areas), or where transportation costs would be high (calling into question the cost-effectiveness of such an option).

Alternatively, EPA may consider whether the sites are "related based on geography," e.g., noncontiguous CERCLA facilities may both represent significant sources of contamination to a common groundwater aquifer or surface water stream. Here again, factors such as the distance between the facilities and the cost-effectiveness of the aggregated response may also be appropriate for consideration.

In any analysis under section 104(d)(4), EPA also believes that it is critical to consider the views of the affected state or states, as well as those of the affected communities (especially those persons living near the facility that would receive waste from other, noncontiguous facilities). Thus, EPA cannot precisely define what distance is appropriate for the aggregation of noncontiguous facilities. EPA will evaluate, on a case-by-case basis, the distance between facilities and the other factors discussed herein, to decide whether it is appropriate to treat two noncontiguous facilities as one under CERCLA section 104(d)(4).[5]

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[5] Note that as a matter of policy, and due in part to special provisions in the Hazard Ranking System model (e.g., the three mile radius evaluation area), EPA applies more restrictive criteria to potential site aggregations for the purposes of NPL listings (see 48 FR 40663, Sept. 8, 1983).

Another commenter recommended that the proposal be broadened to cover areas needed for transportation, storage, and/or treatment at centralized locations on an installation where similar removal or remedial actions can be taken at more than one site.

In response, the authority to treat two noncontiguous facilities as one site is limited under section 104(d)(4) to CERCLA facilities (a "facility," as defined in CERCLA section 101(9), is generally "any site or area where a hazardous substance has ... come to be located"); thus, to the extent that the commenter was suggesting that a centralized location that is not a CERCLA facility may be aggregated with noncontiguous CERCLA facilities, EPA disagrees. Such an approach would go beyond the terms of section 104(d)(4), and would result in an improper expansion of the permit waiver for CERCLA actions conducted "entirely on-site." If a party wishes to establish a treatment or disposal facility at a location that is not within EPA's definition of on-site, it may do so, but it must secure the appropriate permits.

Many comments were received on the option of limiting application of section 104(d)(4) to facilities that are under common ownership. Some commenters objected to aggregating facilities of different ownership because of liability problems. They noted that PRPs at one site could be liable for the entire amount of response costs at the site where on-site activity occurs. A commenter stated that common ownership may lessen some of these legal concerns. One commenter recommended that EPA grant PRPs releases from liability with respect to sites where they did not send CERCLA substances, or that PRP consent will be obtained, before the lead agency employs centralized treatment. Another stated that extending this aggregation concept to facilities with different owners would, in effect, allow Superfund sites to take the place of permitted waste management facilities and goes far beyond the scope of the permit exemption.

Other commenters believed that applying CERCLA section 104(d)(4) to facilities of multiple ownership was acceptable. One commenter stated that EPA treat noncontiguous sites as one site when the properties are owned by the same entity or owned by separate entities that agree to the arrangement. Some commenters supported multiple ownership but took note of the liability problem. One opined that EPA does not have the authority to make PRPs at noncontiguous sites responsible for activities at another site. Another suggested that PRP liability would have to be limited to the amount of liability that would have existed if each site were remediated separately.

In response, the question of whether noncontiguous facilities are commonly owned may appropriately be among the factors for consideration in deciding whether or not to treat noncontiguous facilities as one site; however, EPA disagrees that common ownership should be a necessary condition for coordinating response actions at noncontiguous facilities. At many sites, there are numerous, disparate PRPs although the environmental threat, and the response technology may be the same. Limiting application of CERCLA section 104(d)(4) to sites of common ownership would be unduly restrictive, with no gain in environmental protection. Rather, EPA's interpretation will allow for consolidated treatment or disposal responses at one unit rather than at several units, resulting in advantages in terms of cost, efficiency, and protection of human health and the environment.

EPA recognizes commenters' concerns regarding liability, but believes that the liability issue is separate and distinct from the question of whether two facilities are appropriate for treatment as one site; the latter issue must be evaluated on its own merits. EPA acts to treat noncontiguous facilities as one site where to do so would be in the best interests of achieving sound and expeditious environmental cleanups. Liability issues potentially arise from every response action, whether waste is left on site or is sent to a disposal facility off-site. Indeed, EPA does not believe that a decision to transfer waste from a CERCLA facility to a noncontiguous CERCLA facility as part of an EPA-authorized response action will result in a higher risk of liability than would the transfer of CERCLA wastes to an off-site commercial treatment or disposal facility. That risk of future liability is inherent in the hazardous nature of the waste, and in the quality of the treatment or disposal technology used; it does not result from this rule.

The commenter opposed to EPA's proposal argued that the attempt to include multiple sites within the definition of on-site may allow particular ecological areas, or limited segments of the population, to receive the adverse impacts of incineration or disposal for distant sites without the benefit of permit review.

In response to comments suggesting that PRPs and communities may be adversely affected by the application of this policy, it is important to note that where the lead agency plans to take a consolidated response action at two or more noncontiguous CERCLA facilities, the agency will solicit public comment on the proposed remedy. PRPs and members of the public at all of the noncontiguous facilities will be afforded an opportunity to comment on the wisdom of aggregating the sites and taking a coordinated response action. Indeed, as noted above, EPA has identified consultation with the state(s) and public as a critical factor in deciding whether or not to treat the facilities as one site.

Finally, EPA wishes to clarify that even where noncontiguous facilities are treated as one site, activities at the aggregated site must comply with (or waive) substantive requirements of federal or state environmental laws that are ARARs. In addition, even where noncontiguous facilities are treated as one site, movement of hazardous waste from one facility to another will be subject to RCRA manifest requirements.

Final rule: 1. EPA is revising the proposed definition of "on-site" in §§ 300.5 and 300.400(e)(1) as follows:

> "On-site" means the areal extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of the response action.

2. Reference to CERCLA sections 120 and 121 is added to § 300.400(e)(1).

Name: **Treatability testing and on-site permit exemption.**

Proposed rule: The preamble to the proposed rule stated that the term on-site does not extend to a distant facility that may be conducting a treatability test (53 FR 51407).

Response to comments: One commenter supported a recommendation submitted by the Hazardous Waste Treatment Council (HWTC), summarized in the preamble to the proposed NCP, that EPA modify the NCP to permit treatability testing without the need to obtain a RCRA permit (53 FR 51407). EPA responded in the preamble to the proposed rule that adjustments to permitting requirements to encourage treatability testing should be accomplished by modifying RCRA regulations. EPA disagreed that the term on-site should be extended to encompass treatability testing at off-site facilities.

A commenter on this discussion in the preamble to the proposed rule stated that modifying RCRA rules may not be effective for CERCLA responses because, even if EPA did so, states are not required to modify their RCRA regulations to be consistent with EPA's revision. The commenter recommended that EPA expand the permitting exemption to include treatability tests conducted to support remedy decisions at CERCLA sites and promulgate the exemption in a separate fast-track interim final rule.

In response, as explained in the preamble to the proposed NCP, EPA believes that "to the extent that it is appropriate to adjust permitting requirements to encourage treatability testing, that should be accomplished by directly modifying the RCRA regulations to address such testing generally" (53 FR 51408). As the commenter has pointed out, a rule has been issued under RCRA to expand the RCRA permitting exemption at 40 CFR 261.4 to include waste samples used to conduct small-scale treatability tests. 53 FR 27290, July 19, 1988. That rule was issued after the public was provided notice and comment opportunities.

Although the commenter is not fully satisfied by the result of that RCRA rulemaking (speculating that the exemption may not be implemented quickly, and that some states may decide not to implement it at all), EPA is satisfied that the proper federal regulatory action has been taken. Further, if the commenter and other members of the public are concerned that states may not follow the federal example, they are free to urge state governments to take prompt and similar action. However, EPA holds to its belief that the RCRA rulemaking is the proper forum for deciding whether a RCRA permit should be required for treatability tests, including off-site treatability tests conducted in support of a CERCLA action.

EPA also declines to follow the commenter's recommendation that EPA interpret the permit exemption in CERCLA section 121(e) to reach non-proximate, off-site treatability tests. The CERCLA permit exemption applies to removal or remedial actions conducted "entirely on-site." Although EPA has interpreted the term "on-site" to include certain proximate areas not formally within the area of contamination, that interpretation has been a limited one. EPA has included within "on-site" only those areas that are both in "very close proximity" to the contamination and "necessary for implementation of the response action." As explained in the preamble to the proposed and final NCP, such an interpretation is necessary to give practical meaning to the permit exemption and to expedite cleanup actions. EPA does not believe, however, that the language of the statute can be interpreted so broadly as to accommodate the commenter's request. As EPA noted in the preamble to the proposed NCP, "EPA does not believe that the term 'on-site' can extend to a distant facility that may be conducting a treatability test." (53 FR 51408).

Final rule: There is no rule language on this issue.

Name: Section 300.400(h). PRP oversight.

Proposed rule: Proposed section 300.400(h) states that the lead agency "may provide oversight for actions taken by potentially responsible parties to ensure that a response is conducted consistent with this [rulemaking]." The section also states that the lead agency may oversee actions by third parties at a site.

Response to comments: Several of those who commented requested stronger language in the NCP preamble and the above sections clarifying that EPA will provide for site oversight, and not that it "may" provide oversight.

EPA agrees with the comment and will provide oversight for an enforcement action under CERCLA.

Final rule: Proposed § 300.400(h) is amended to include the following language: "EPA will provide oversight when the response is pursuant to an EPA order or federal consent decree."

SECTION 300.405. Discovery or Notification

Name: **Section 300.5. Definition of "CERCLIS."**

Proposed rule: Section 300.5 of the proposed rule defined CERCLIS as EPA's comprehensive data base and management system that inventories and tracks releases addressed by the Superfund program. The section stated that CERCLIS contains three distinct inventories: CERCLIS Removal Inventory, CERCLIS Remedial Inventory, and CERCLIS Enforcement Inventory. The proposed definition of CERCLIS also stated that it contains a record of both "active releases" and "inactive releases". The definition noted that records of these releases are retained in the database as an historical record.

Response to comments: One commenter suggested several changes to the definition of CERCLIS. First, the commenter suggested that the definition of CERCLIS should be clarified to indicate whether a site can be on more than one of the three sub-inventories at the same time. Second, the definition of CERCLIS should state that the term "inactive release" is replacing the "no further action" designation. Third, EPA should specifically state in the definition, as it does in the preamble, that once a "no further action" determination has been made, the site listing will be archived as an historical record and that for routine informational and dissemination purposes only active sites will be listed.

The commenter has pointed to several statements in the definition of CERCLIS and in the preamble description of that definition that need to be clarified. First, CERCLIS contains data integrated from the pre-remedial, remedial, removal, and enforcement sections of the Superfund program; however, it does not contain distinct sub-inventories for each of these program areas (although CERCLIS has the flexibility to retrieve each of these areas separately for tracking, planning or analysis purposes). Thus, there is only one CERCLIS inventory.

Second, the use of the terms "active releases" and "inactive releases" in the proposal may have been misleading, since EPA does not use these terms to categorize sites in CERCLIS. Sites that EPA decides do not warrant moving further in the site evaluation process are given a "No Further Response Action Planned" (NFRAP) designation in CERCLIS. This designation signifies that no additional federal steps under CERCLA will be taken unless information later indicates that this decision was incorrect.

The commenters' last point, which stems from a statement in the preamble to the proposed revisions to the NCP, also deserves clarification. EPA does not make a distinction for information dissemination purposes between NFRAP sites and sites that will continue in the site evaluation process. The public has access to information on all sites listed in the CERCLIS database. (See next preamble section for further discussion of the purpose of CERCLIS.) Sites remain in the database after they have been evaluated to document such evaluation and to avoid unnecessary repetition of evaluation activities.

Final rule: EPA has modified the proposed definition of CERCLIS to clarify several points noted by the commenter and to bring the definition more in line with current Superfund practice. The final rule's definition of CERCLIS deletes language that indicates that there are separate sub-inventories for removal, remedial, and enforcement Sites. In addition, the final rule drops the terms "active release" and "inactive release" and uses the term "No Further Response Action Planned." The promulgated definition is:

> "CERCLIS" is the abbreviation of the CERCLA Information System, EPA's comprehensive data base and management system that inventories and tracks releases addressed or needing to be addressed by the Superfund program. CERCLIS contains the official inventory of CERCLA sites and supports EPA's site planning and tracking functions. Sites that EPA decides do not warrant moving further in the site evaluation process are given a "No Further Response Action Planned" (NFRAP) designation in CERCLIS. This means that no additional federal steps under CERCLA will be taken at the site unless future information so warrants. Sites are not removed from the database after completion of evaluations in order to document that these evaluations took place and to preclude the possibility that they be needlessly repeated. Inclusion of a specific site or area in the CERCLIS database does not represent a determination of any party's liability, nor does it represent a finding that any response action is necessary. Sites that are deleted from the NPL are not designated NFRAP sites. Deleted sites are listed in a separate category in the CERCLIS database.

Name: Sections 300.405 and 300.415(e). Listing sites in CERCLIS.

Proposed rule: Proposed § 300.405(f)(2) stated that when notification indicates that a removal action is not required, a remedial action may be performed and the release will be listed in CERCLIS. Proposed § 300.415(e) referred to listing releases in the CERCLIS removal inventory.

Response to comments: Several commenters suggested changes to the criteria used by EPA to list sites in CERCLIS. One commenter proposed that EPA not list in CERCLIS sites that had already been remedied since the time they were first discovered. In addition, the commenter urged EPA to adopt a delisting procedure for sites in CERCLIS that had already been remedied. The commenter noted that an alternative to this suggestion would be to keep two distinct lists--one for "resolved sites" and a second for "unresolved sites." A second commenter suggested that where a notifier is "doubtful" that a release has occurred, no such qualified release report should be included in CERCLIS without independent verification that a legally reportable release did occur.

In response, EPA believes that the commenters have attached more significance than is warranted to the listing of a site in CERCLIS. As noted in the definitions section of this rule (300.5), CERCLIS is a computerized database in which EPA stores management information on all sites evaluated under the Superfund program. Sites are discovered through a wide variety of mechanisms, including such diverse sources as formal notification requirements and citizen telephone calls and, as appropriate, are placed in CERCLIS. Those sites that are included in CERCLIS are not removed from the database after completion of evaluations in order to document that these evaluations took place and to avoid unnecessary repetition of evaluation activities. Inclusion of a specific site or area in the CERCLIS database does not represent a finding of liability or a determination that response action is necessary. EPA also does not believe that significant financial liability can be inferred by the mere fact that a site is on CERCLIS.

The assumption that substantial, or any, risk to public health and the environment is associated with a site contained in CERCLIS is largely inaccurate. The percentage of sites going on to the National Priorities List, which is EPA's list of sites believed to pose environmental threats significant enough to warrant detailed evaluation for possible remedial action under Superfund, is now between 2 percent and 7 percent of those assessed. A full 50 percent of CERCLIS sites are eliminated from further consideration at the first step of the process, the preliminary assessment (PA).

Sites that EPA decides do not warrant moving further in the process are given a "No Further Response Action Planned (NFRAP)" designation in CERCLIS. This means that no additional federal steps will be taken at the site unless information arrives from some source indicating that this decision was incorrect. It is particularly important to note that EPA's NFRAP decision does not mean that there is no hazard associated with a given site; it means only that based on available information at that time, EPA does not plan to take further action under CERCLA. States are notified of all NFRAP decisions in order to inform them that the federal government does not plan to proceed further, and to allow states the opportunity to share any additional data they may have that would change the decision. A small percentage of NFRAP sites are returned to active consideration through this mechanism each year.

Accordingly, EPA is deleting language in the rule that implies that a release is entered into CERCLIS after a remedial evaluation has been performed. In fact, sites are generally entered into CERCLIS before a remedial evaluation has been performed. Thus, EPA is revising this rule language to more accurately reflect EPA evaluation practice.

Also, consistent with the explanation in the previous preamble section that CERCLIS does not contain distinct inventories for the removal, remedial and enforcement programs, references to removal and remedial inventories have been deleted from proposed §§ 300.405(f)(2) and 300.415(e).

A sentence has been added to § 300.405(g) clarifying that federal agencies are not legally obligated to comply with the requirements of Title III because they are not included in the Title III definition of "person" contained in section 329(7). Federal agencies are encouraged, however, to establish programs to implement Title III to the extent practicable at their facilities.

Many federal facilities have already established procedures for working with local emergency planning committees and state emergency response commissions on compliance with the emergency planning and reporting requirements under Title III.

Final rule: Proposed §§ 300.405 and 300.415(e) are revised as follows:

1. The last sentence in proposed § 300.405(b) is revised as follows (see explanation in preamble discussion on § 300.615): "If it is not possible to notify the NRC or predesignated OSC immediately, reports may be made immediately to the nearest Coast Guard unit. In any event, such person in charge of the vessel or facility shall notify the NRC as soon as possible."

2. The reference to the "CERCLIS Remedial Inventory" has been deleted from proposed § 300.405(f)(2).

3. The following sentence has been added to § 300.405(g): "Federal agencies are not legally obligated to comply with the requirements of Title III of SARA."

4. Proposed § 300.415(e) on CERCLIS removal inventory is deleted. The sections in § 300.415 have been renumbered.

SECTIONS 300.410 AND 300.420. Removal and remedial site evaluations.

Name: Section 300.410. Removal site evaluation.

Proposed rule: Proposed § 300.410 describes the removal site evaluation process, but does not address funding constraints placed on the evaluation or PRP participation in the evaluation.

Response to comments: One commenter recommended including NCP preamble language that would authorize the OSC to use outside scientific experts during the removal site evaluation, providing that the PRP is willing to pay for such scientific support.

There is nothing in the statute to prevent or discourage the use of additional scientific fact experts at a site provided PRPs are willing to pay for it themselves. The discussion in the preamble to the proposed § 300.410 suggested such additional activity is permissible with OSC oversight: "There may also be instances of voluntary response where the OSC provides monitoring to assure proper response and to avoid a situation where followup action would be needed" (53 FR 51409). Any data generated by outside scientific experts would have to conform to appropriate provisions of the NCP in order to be used as the basis for decisions under CERCLA.

Final rule: EPA is promulgating § 300.410 as proposed except for a revision to § 300.410(g)(see preamble section below).

Name: Section 300.410(c)(2). Removal site evaluation. Section 300.420(c)(5). Remedial site evaluation.

Proposed rule: Section 300.410(c)(2) details the steps of a removal preliminary assessment. Section 300.420(c)(5) describes the information contained in a lead-agency report following completion of a remedial site investigation, including documentation as well as sampling data and potential risks to humans and the environment.

Response to comments: A commenter asked that the NCP state that reasonable efforts will be made during the site investigation phase to identify PRPs and provide them copies of the preliminary assessment/site investigation (PA/SI) report and an opportunity to comment.

The removal and remedial processes as currently outlined in the NCP provide PRPs with a reasonable opportunity to review and comment on lead agency actions at a site when the proposed plan is made available. Before this time, documents placed in the administrative record, including the PA/SI, are available for public inspection. In addition, PRPs that are interested in more extensive involvement in the investigation process may agree to undertake removal or remedial actions through a settlement agreement with EPA. They may be granted substantially more site involvement than non-settling PRPs.

Extending the formal review and comment period to PRPs as far back in the removal and remedial process as the PA/SI stage would unnecessarily slow down preliminary fact-gathering at a site. In cases where removal actions are considered emergency or time-critical, such review and comment time would unjustifiably delay response to a dangerous situation. Also, in most cases, the PRP search has not been completed or even started in a comprehensive manner at the time of the PA/SI. Accordingly, specifying formal procedures for PRP involvement at that time is not practical.

Final rule: EPA is promulgating §§ 300.410(c)(2) and 300.420(c)(5) as proposed.

Name: Section 300.410(g). Notification of natural resource trustee.

Final rule: Section 300.410(g) is revised as follows (see preamble discussion on § 300.615):

> If natural resources are or may be injured by the release, the OSC or lead agency shall ensure that state and federal trustees of the affected natural resources are promptly notified in order that the trustees may initiate appropriate actions, including those identified in Subpart G of this Part. The OSC or lead agency shall seek to coordinate necessary assessments, evaluations, investigations, and planning with such state and federal trustees.

Name: Sections 300.415(b)(4) and 300.420(c)(4). Sampling and analysis plans.

Proposed rule: Proposed § 300.415 did not describe sampling requirements. Proposed § 300.420(c)(4) described the procedures necessary for preparing a site-specific sampling plan for a remedial site inspection.

Response to comments: One commenter stated that EPA should revise § 300.420(c)(4) to specify review of the sampling plan to ensure that appropriate sampling and quality control procedures are followed. In response, EPA is revising the description of the site-specific sampling plan in proposed § 300.420(c)(4) to conform with the purpose of the quality assurance project plan (QAPP) defined in § 300.5 and the QAPP and sampling and analysis plan described in 300.430(b)(8), which states that such plans will be approved by EPA. This change emphasizes the similarity of these activities in the site evaluation and remedial investigation parts of the program. In addition, EPA believes that, when samples will be taken, it is appropriate to describe sampling requirements for non-time-critical removal actions to ensure that data of sufficient quality and quantity will be collected for this type of action.

EPA also notes that portions of the QAPP may incorporate by reference non site-specific standardized portions of already-approved QAPPs, especially those portions addressing policy and organization, or describing general functional activities to be conducted at a site to ensure adequate data. This eliminates the necessity to reproduce non-site-specific quality assurance procedures for every site.

Final rule: Proposed §§ 300.415(b)(4) and 300.420(c)(4) are revised as follows:

1. In § 300.415(b)(4), a requirement has been added for developing a sampling and analysis plan, when samples will be taken.

2. Section 300.420(c)(4) is revised to better describe the required contents of the sampling and analysis plan.

SECTION 300.415. Removal action.

Name: **Section 300.415(b)(5)(ii). Removal action statutory exemption.**

Proposed rule: CERCLA 104(c)(1)(C) provides a new exemption to the statutory limits on Fund-financed removal actions of $2 million and 12 months. This exemption, stated in the NCP in § 300.415(b)(5)(ii), is applicable when continued response is otherwise appropriate and consistent with the remedial action to be taken. EPA expects to use the exemption primarily for proposed and final NPL sites, and only rarely for non-NPL sites (see 53 FR 51409).

Response to comments: One commenter supported EPA's proposal to allow waiver of the limits on Fund-financed removal payments if such an exemption is consistent with remedial actions.

One commenter stated that the decision to engage in a removal action should be based on site conditions and their impact on health and the environment, not cost or time; that once EPA concludes that a removal action is appropriate, the various alternatives should be analyzed at both likely NPL and non-NPL sites equally. The commenter felt that EPA should use the consistency exemption more liberally where time, rather than money, was the complicating factor.

In response, Congress has made the determination that cost and time are relevant factors in deciding how extensive a Fund-financed removal action may be; thus, contrary to the commenter's remark, EPA will continue to consider such factors. Further, Congress did not differentiate between time and dollar limits in setting the exemptions; EPA notes that exceeding the time limit will often also increase the cost of a removal action, even though it does not necessarily raise the cost to over $2 million. Thus, EPA does not believe it should set different criteria for their use.

The new exemption from the time and dollar limits applies to any Fund-financed removal and thus encompasses state-lead as well as EPA-lead responses. Actions where EPA has the lead, but is to be reimbursed by private parties or other federal agencies, are still subject to the statutory limits and provisions for exemption.

Because the exemption requires consistency with the remedial action to be taken, its use is well suited to proposed or final NPL sites where remedial action is likely to be taken. It may also be appropriate to use this exemption at some non-NPL sites where justified on a case-by-case basis.

Final rule: EPA is promulgating the rule as proposed.

Name: Section 300.415(i). Removal action compliance with other laws.

Existing rule: The current NCP in § 300.65(f) requires that Fund-financed removal actions and removal actions pursuant to CERCLA section 106 attain or exceed, to the greatest extent practicable considering the exigencies of the circumstances, applicable or relevant and appropriate federal public health and environmental requirements. Other federal criteria, advisories, and guidance and state standards are to be considered, as appropriate, in formulating a removal action.

Proposed rule: Proposed § 300.415(j) (renumbered as 300.415(i) in the final rule) required that removal actions attain, to the extent practicable considering the exigencies of the situation, all state as well as federal applicable or relevant and appropriate requirements (ARARs).[6] Other federal and state criteria, advisories, and guidance shall, as appropriate, be considered in formulating the removal action. The proposed revisions also note that statutory waivers from attaining ARARs may be used for removal actions. In addition, the preamble to the proposed revisions provided guidance clarifying three factors to be considered in determining the "practicability" of complying with ARARs: the exigencies of the situation, the scope of the removal action to be taken, and the effect of ARAR attainment on the removal statutory limits for duration and cost (53 FR 51410-11).

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[6] Note that proposed § 300.415(e) has been deleted (see preamble section above on "Listing sites in CERCLIS," and the remaining sections in § 300.415 have been renumbered.

Response to comments: Several commenters supported the proposed revision to the NCP requiring that both federal and state ARARs be complied with when conducting removal actions. One commenter asked what documentation is required to show that ARARs have been identified and requested that EPA develop guidance providing hypothetical conditions describing the extent to which ARAR analysis should be performed. Another commenter stated that non-Fund-financed removal actions conducted at federal facilities also should be required to comply with ARARs.

In opposition to the proposal, a number of commenters pointed out that Congress did not intend that removal actions be required to comply with ARARs. The commenters suggested that, based on the legislative history, Congress intended that only remedial actions be subject to compliance with ARARs. According to one commenter, the legislative history states that ARARs do not apply during removal actions because removal actions are short-term, relatively low-cost activities of great urgency that should be free of the delays that may arise if it is necessary to identify and attain ARARs.

Other commenters suggested that attainment of ARARs should not be required during removal actions because removal actions are not intended to completely clean up a site, but rather to quickly eliminate or control an immediate threat. The commenters argued that compliance with ARARs is based on what remains on site after an entire remedy is completed, not after a particular problem is controlled. In addition, several commenters argued that the main purpose of the removal program is quick mitigation of threats, and that requiring ARARs to be complied with during removal actions undermines this purpose by slowing down the cleanup process. The commenters suggested that such procedural delays as identification of ARARs will hinder the removal program's ability to respond to emergencies swiftly.

Several additional commenters suggested that requiring attainment of ARARs discourages PRPs from undertaking removal actions. Fund-financed removals can use the statutory limits to limit attainment of ARARs; those limits do not apply to PRP actions.

One commenter opposed the provision that requires OSCs to justify why they are not attaining ARARs during a specific removal action. The commenter argued that the prospect of an OSC being required to justify why he or she is not attaining all ARARs is inconsistent with removal program objectives.

Other commenters believed that the current policy concerning compliance with ARARs during removal actions should be replaced with a more discretionary policy. They suggested that OSCs should only be required to comply with ARARs that are most crucial to the proper stabilization of the site and protection of public health and the environment.

In response, EPA has carefully reviewed this issue in light of the public comments, and believes a number of clarifying points need to be made. First, as a threshold matter, EPA agrees that Congress did not, in the 1986 amendments to CERCLA, "require" EPA to meet ARARs during removal actions. However, it has been EPA's policy since 1985, established in the NCP, to attain ARARs during removals to the extent practicable, considering the exigencies of the situation. EPA believes that this is still a sound policy. Reference to requirements under other laws (i.e., ARARs) help to guide EPA in determining the appropriate manner in which to take a removal action at many sites.

If, for example, a component of the removal action is to discharge treated waste to a nearby river or stream, effluent limitations based on federal or state water quality criteria will be useful in determining the extent of such treatment. Today's policy is consistent with section 105 of CERCLA which directs that the NCP include methods and criteria for determining the appropriate extent of removals. Thus, EPA is maintaining the policy described in the preamble to the proposed NCP, although EPA has modified the factors to be considered in determining practicability.

A number of other comments questioned the extent to which removals should attempt to attain ARARs. In responding to such comments, it is important to note that the policy that removals comply with ARARs to the extent practicable is defined in large part by the purpose of removal actions.

The purpose of removal actions generally is to respond to a release or threat of release of hazardous substances, pollutants, or contaminants so as to prevent, minimize, or mitigate harm to human health and the environment. Although all removals must be protective of human health and the environment within their defined objectives, removals are distinct from remedial actions in that they may mitigate or stabilize the threat rather than comprehensively address all threats at a site. Consequently, removal actions cannot be expected to attain all ARARs. Remedial actions, in contrast, must comply with all ARARs (or invoke a waiver). Indeed, the imposition by Congress of limits on the amount of time and Fund money that may be spent conducting a removal action often precludes comprehensive remedies by removal actions alone. Removal authority is mainly used to respond to emergency and time-critical situations where long deliberation prior to response is not feasible. All of these factors -- limits on funding, planning time, and duration, as well as the more narrow purpose of removal actions -- combine to circumscribe the practicability of compliance with ARARs during individual removal actions. Indeed, the vast majority of removals involve activities where consideration of ARARs is not even necessary, e.g., off-site disposal, provision of alternate water supply, and construction of fences, dikes and trenches.

Further, it should be noted that requirements are ARARs only when they pertain to the specific action being conducted. If, for example, a site has leaking drums, widespread soil contamination, and significant ground-water contamination, the removal action at the site might only involve actions necessary to reduce the near-term threats, such as direct contact and further deterioration of the ground water; thus, the removal action might be limited to removal of the drums and surface debris and excavation of highly contaminated soil. Requirements pertaining to the cleanup of ground-water contamination would not be ARARs for that action because the removal action is not intended to address ground water; rather, requirements pertaining to the drums, surface debris, or contaminated soil may be ARARs for the specific removal action. Once the lead agency makes the determination that the requirements are ARARs for a removal, then it must determine whether compliance is practicable.

It will generally be practicable for removal actions to comply with ARARs that are consistent with the goals and focus of the removal. However, as stated above, removals are intended to be responses to near-term threats, with the ability to respond quickly when necessary; thus, ARARs that would delay rapid response when it is necessary, or cause the response to exceed removal goals, may be determined to be impracticable. Of course, even where compliance with specific ARARs is not deemed practicable, the lead agency for a removal must use its best judgment to ensure that the action taken is protective of human health and the environment within the defined objectives of the removal action.

In order to better explain how a lead agency can determine when compliance with an ARAR is practicable, the preamble to the proposed NCP included three factors for consideration: exigencies of the situation, scope of the removal action and the statutory limits (53 FR 51410-11). Upon consideration of comments, EPA has decided to enumerate in the rule only two of those three factors as important for determining practicability: urgency (simply renaming exigencies) of the situation, and scope of the removal action. EPA believes that statutory limits, because they relate to the authority to conduct removal actions, are easier to consider within, rather than apart from, the factor of scope of the removal action when determining whether compliance with an ARAR is practicable.

The factor of urgency of the situation relates to the need for a prompt response. In many cases, appropriate response activities must be identified and implemented quickly in order to ensure the protection of human health and the environment. For example, if leaking drums pose a danger of fire or explosion in a residential area, the drums must be addressed immediately, and it will generally be impracticable to identify and comply with all potential ARARs.

The second factor, the scope of the removal action relates to the special nature of removals in that they may be used to minimize and mitigate potential harm rather than totally eliminate it. Removals are further limited in the amount of time and Fund money that may be expended at any particular site in the absence of a statutory exemption. Again, using the example above, even though standards requiring cleanup of the lower level soil contamination would be an ARAR to that medium, they would be outside the scope of the removal action when such cleanup is not necessary for the stabilization of the site, or when it would cause an exceedance of the statutory limits and no exemption applied. Hence, such soil standards, while ARARs, would not be practicable to attain considering the exigencies of the situation. Of course, such standards may be ARARs for any remedial action that is subsequently taken at the site.

EPA disagrees with the comment that requiring PRPs to comply with ARARs to the extent practicable discourages PRPs from conducting removals because the statutory limits do not apply to non-Fund-financed actions. Although the limits apply by law to Fund-financed actions only, EPA has the discretion under CERCLA section 104(c)(1) to take removal actions that exceed those limits, in emergency situations or where the action is otherwise appropriate and consistent with the remedial action that may be taken at the site. EPA will select the appropriate remedy, even where an extensive removal action is warranted, regardless of whether the site is Fund-lead or PRP-based. The only difference is that if the site is Fund-lead, an exemption must first be invoked in order to proceed with the action. Thus, the time and dollar limitations generally will not result in PRPs performing a more extensive removal than EPA itself would conduct. That is, EPA's selection of a removal action, including what ARARs will be attained, will not be based on who will be conducting the removal.

Finally, as stated in the preamble to the proposed NCP (53 FR 51411), even if attainment of an ARAR is practicable under the factors described above, the lead agency may also consider whether one of the statutory waivers from compliance with ARARs is available for a removal action. EPA is developing guidance on the process of complying with ARARs during removal actions. EPA generally will only require documentation of ARARs for which compliance is determined to be practicable, in order not to burden OSCs with substantial paperwork requirements.

Final rule: Proposed § 300.415(j)(renumbered as final § 300.415(i)) is revised as follows:

1. The following has been added to identify factors that are appropriate for consideration in determining the practicability of complying with ARARs:

> In determining whether compliance with ARARs is practicable, the lead agency may consider appropriate factors, including the following:
>
> (A) The urgency of the situation; and
>
> (B) The scope of the removal action to be conducted.

2. The reference to advisories, criteria or guidance has been modified (see preamble section below on TBCs).

3. The description of ARARs has been reworded (see preamble section below on the definition of "applicable."

Name: Sections 300.5, 300.415(g) and (h), 300.500(a), 300.505 and 300.525(a). State involvement in removal actions.

Existing rule: Sections 300.61 and 300.62 of the current NCP encourage states to undertake actions authorized under Subpart F. Such actions include removal and remedial actions pursuant to CERCLA section 104(a)(1). The regulation notes further that CERCLA section 104(d)(1) authorizes the federal government to enter into contracts or cooperative agreements with the state to take Fund-financed response actions authorized under CERCLA, when the federal government determines that the state has the capability to undertake such actions.

Proposed rule: Proposed §§ 300.415(h) and (i)(renumbered as final §§ 300.415(g) and (h)) and 300.525(a) would codify EPA's existing policy of entering into cooperative agreements with states to undertake Fund-financed removal actions, provided that states follow all the provisions of the NCP removal authorities. The preamble to the proposed rule suggested that non-time critical actions are the most likely candidates for state-lead removals (53 FR 51410). Proposed § 300.510(b) provided further that facilities operated by a state or political subdivision require a minimum cost share of 50 percent of the total response costs if a remedial action is taken. Section 300.505 describes what EPA and a state may agree to in a Superfund Memorandum of Agreement (SMOA) regarding the nature and extent of interaction on EPA-lead and state-lead response. The preamble clarified that, where practicable, a SMOA may include general provisions for interaction on removal actions (53 FR 51455). The preamble to the proposed rule described other topics for EPA/state discussion on provisions in SMOAs on removal actions (53 FR 51454-55).

Response to comments: One commenter supported the proposed revision stating that state-lead removals through a cooperative agreement would be a very positive step. The commenter argued, however, that it would be unreasonable to provide guidance that strongly encourages states to conduct such removals when no funds for conducting them are made available.

Several commenters specifically called for the delegation of the removal program to the states. One of these commenters stated that the revised NCP should include more detailed and permissive language specifically allowing for program authority to be delegated to states. According to the commenter, this would allow response-capable states to pursue program authorization from EPA through cooperative agreements rather than through single or multiple project authorizations. In addition, the commenter recommended that states which become authorized to conduct removal actions be granted funding support similar to the support that EPA provides for the Technical Assistance Team and the Emergency Response Cleanup Services, thereby allowing the state to effectively administer the duties of the lead-agency during a removal action. The commenter also recommended that authorized states be allowed full reimbursement of their removal costs from the Hazardous Substances Trust Fund. Another commenter suggested allowing states to develop administrative and technical staff capable of overseeing removal actions. The commenter believed that a policy should be included in the NCP that allows for the states to hire contractors on a stand-by basis to allow for timely response to removal sites. A third commenter recommended that states be permitted by the NCP to establish predesignated OSCs/RPMs who would have the authority to use federal funds pursuant to a cooperative agreement or contract for cleanup of oil and hazardous substances under these programs.

Other commenters called for at least some expanded opportunities for state involvement in the removal program. Several commenters argued that states should be allowed to conduct more than just non-time critical removals, indicating that it would be faster and far less costly for states to conduct all types of removals. Another commenter argued that states should be afforded the opportunity to conduct removal actions under cooperative agreements unless an emergency exists that does not allow time for EPA to enter into a cooperative agreement with the state. One commenter suggested that states now have very effective Superfund programs with experienced and capable staffs. According to the commenter, some of these programs have better cleanup records than the federal program. The commenter states that EPA has failed to take full advantage of these state programs to improve the performance of the federal Superfund effort.

Several commenters requested clarification of EPA policies on state-lead removals. The commenters requested further clarification in the NCP regarding the circumstances under which states will be allowed to conduct non-time-critical removals, what criteria will be used to make decisions concerning when states will be allowed to conduct such actions, and how a state-lead removal program will be structured.

Other commenters suggested that EPA more clearly define the EPA/state relationship concerning removal actions. One of these commenters suggested that EPA should emphasize state/EPA coordination on all removal actions regardless of who is in the lead. Another commenter stated that the NCP should outline the EPA/state interaction on removal sites in the same detail as the relationship is outlined at remedial sites.

One commenter representing a state presented specific examples of how present state/EPA removal interaction is ineffective. The commenter alleged that the state had been left out of public meetings and meetings between EPA and the PRPs, that the state is not consulted on press releases, and that state comments on negotiations with PRPs are not considered by EPA. Another commenter suggested that EPA in general take into consideration state comments when conducting removal actions.

In response, EPA is committed to state involvement in the removal program and is, therefore, revising regulatory language in §§ 300.5, 300.500(a) and 300.505 regarding SMOAs to include references to removal actions. EPA believes that the SMOA can often be used to specify the areas appropriate for EPA/state interaction during removal actions. As noted in the preamble to the proposed rule, the SMOA may include: (1) the process to be followed by EPA and a state to notify each other of a determination that a removal action is necessary; (2) the procedures to be followed by EPA and a state to consult and comment upon the nature of any proposed removal action, and (3) the procedures to be followed to provide for post-removal site control for fund-financed removals as described in § 300.415(k). A definition of "post-removal site control" has been added to § 300.5 because this term is used in several places in the NCP. If EPA and a state desire, the SMOA provisions may also include details on interaction at public meetings, negotiations with PRPs, etc. EPA wishes to emphasize, however, that the negotiations concerning EPA/state interaction during removal actions should not be allowed to interfere with or prolong the completion of the SMOA negotiations. If EPA and the state find that discussion of the provisions regarding removal actions is delaying completion of the SMOA, they should proceed with the SMOA negotiations without removal action provisions, and at a later date amend the SMOA to include these provisions.

Currently, EPA's policy is that states may conduct a non-time-critical removal action for a specific site. In response to comments, EPA considered allowing states to conduct Fund-financed time-critical and emergency removal actions as well. After careful consideration, however, EPA decided to continue its current policy of allowing only non-time-critical removal actions to be state-lead. In arriving at this decision, EPA weighed several factors concerning the nature of removal actions, and the history of the removal program. First, EPA may not obligate funds in anticipation of removal actions that may take place in the future. Therefore, states must enter into site-specific cooperative agreements (CAs) before they are allowed to undertake a removal action. In the past, EPA attempted using CAs more extensively in the removal program but found that the CA negotiating process is often long and complicated. EPA was concerned that the process could hinder timely response to releases requiring emergency or time-critical action. Second, the removal program has limited funding. Because of the necessity for ensuring adequate response capabilities on the federal level, EPA does not anticipate that additional funding will be available for states to conduct emergency and time-critical removal actions and, therefore, does not believe it would be feasible to allow states to undertake these types of response actions. For these reasons, EPA believes that its current policy of permitting states to conduct only non-time-critical removal actions allows EPA to retain its ability to respond immediately to releases that threaten human health and the environment while simultaneously providing states a role in the removal action process.

For a state to conduct Fund-financed, non-time-critical removal actions, the state must first enter into a CA with EPA. Additionally, only removal actions that are listed on the approved or revised Superfund comprehensive accomplishments plan (SCAP) can be state-lead. The Regional Administrator (RA) evaluates a state's request to lead a Fund-financed removal action and decides on a case-by-case basis whether the action is appropriate for state-lead. When making his/her decision the RA considers: (1) the state's experience in leading activities conducted under the remedial program that are similar to the response actions required to clean up or to stabilize the release at the site under evaluation for state-lead; (2) the state's experience in responding to hazardous substance releases independent of federal involvement and funds; and (3) whether the state has prepared a state contingency plan for hazardous substance release response. For more information concerning state-lead removals see 40 CFR Part 35 Subpart O.

In further response to the comment on delegating authority (and transferring funds) to states, EPA notes that although authority to conduct time-critical and emergency removals is not being delegated to states, funding may be available under the Core Grant Program to assist states in developing an infra-structure for involvement and interagency coordination during removal actions. For more information concerning the Core Grant Program see 40 CFR Part 35 Subpart O.

Final rule: 1. Proposed §§ 300.5 (definition of SMOA), 300.500(a), 300.505(a)(3) and 300.505(d)(1) are revised to add the word "removal" before the word "pre-remedial."

2. Proposed §§ 300.415(h) and (i) are renumbered as §§ 300.415(g) and (h) and promulgated as proposed.

3. A definition for "post-removal site control" is added to § 300.5 as follows:

> "Post-removal site control" means those activities that are necessary to sustain the integrity of a Fund-financed removal action following its conclusion. Post-removal site control may be a removal or remedial action under CERCLA. The term includes, without being limited to, activities such as relighting gas flares, replacing filters and collecting leachate.

4. References to "post-removal site control" have been added to the definitions in § 300.5 of "remove or removal" and "remedy or remedial action."

SECTION 300.425 Establishing remedial priorities

Name: Section 300.5. Definition of National Priorities List. Section 300.425. Establishing remedial priorities.

Proposed rule: Section 300.5 included a definition of National Priorities List. Section 300.425 identified the criteria, methods, and procedures EPA uses to establish its priorities for remedial action. The proposed rule stated that although only those releases included on the NPL are eligible for Fund-financed remedial action, remedial planning activities pursuant to CERCLA section 104(b) are not considered remedial actions and are not limited to NPL sites.

Response to comments: EPA has made several changes to language on listing sites on the National Priorities List. First, EPA is revising the rule to explain more clearly which EPA authorities are limited to sites on the NPL.

In both the existing NCP (40 CFR 300.66(c)(2), 300.68(a)(1)) and the 1988 proposed revisions (§ 300.425(b)(1), 53 FR at 51502), EPA has stated that Fund money may be used for CERCLA remedial actions only for those releases that are listed on the NPL. The 1985 NCP (40 CFR 300.68(a)(1)) and the proposed revision went on to state that this limitation on the use of Fund money would not apply to "remedial planning activities pursuant to CERCLA section 104(b)," which despite the use of the word "remedial" in the name, come within the definition of "removal" actions under CERCLA section 101(23). See 54 FR 41002 (October 4, 1989); 52 FR 27622 (July 27, 1987); 50 FR 47927 (November 20, 1985). In the interest of clarity on this point, EPA has amended final § 300.425(b)(1) to provide that the limitation on remedial action funding to releases on the NPL would not apply to "removal actions (including remedial planning activities, RI/FSs, and other actions taken pursuant to CERCLA section 104(b))." This clarification is consistent with the proposed and final § 300.415(b)(1), which states that a removal action may be taken at appropriate sites regardless of inclusion on the NPL.

The proposed and final rule, at § 300.425(b)(4), also make clear that EPA may take enforcement actions at non-NPL sites. EPA also notes that it has the discretion to use its authorities under CERCLA, RCRA, or both to accomplish appropriate cleanup action at a site, even where the site is listed on the NPL. (See 54 FR at 41009 (Oct. 4, 1989).) In particular, where a site is at an active, RCRA-permitted facility, and the owner/operator is present and has adequate financial resources to fund the entire cleanup, EPA may consider whether the use of RCRA or CERCLA authorities (or both) is most appropriate for the accomplishment of cleanup at the site. In the context of federal facility cleanups, this decision, and the cleanup plan in general, would be discussed in the Interagency Agreement (IAG) for the facility.

Second, EPA is deleting a sentence from § 300.425(b)(2) that reads: "Responsible parties shall pay for or implement response actions to the fullest extent practicable." EPA reiterates that it is EPA policy for responsible parties to pay for or implement response actions to the maximum extent practicable. EPA believes, however, that this policy is more appropriately stated in the preamble.

In addition, proposed § 300.425(c)(2) is revised to add the phrase "(not including Indian tribes)" in order to be consistent with the reference to "state" in CERCLA section 105(a)(8)(B).

Consistent with the revisions to § 300.425, EPA is also revising the proposed definition of National Priorities List in § 300.5 to clarify that EPA may allow actions other than Fund-financed actions under CERCLA to be conducted at NPL sites.

Final rule: 1. The proposed definition in § 300.5 is revised as follows:

> "National Priorities List" (NPL) means the list, compiled by EPA pursuant to CERCLA section 105, of uncontrolled hazardous substance releases in the United States that are priorities for long-term evaluation and response.

2. Proposed § 300.425(b) is revised as follows:

> (b) National Priorities List. The NPL is the list of priority releases for long-term evaluation and remedial response.
>
> (1) Only those releases included on the NPL shall be considered eligible for Fund-financed remedial action. Removal actions (including remedial planning activities, RI/FSs and other actions taken pursuant to CERCLA section 104(b)) are not limited to NPL sites.
>
> (2) Inclusion of a release on the NPL does not imply that monies will be expended, nor does the rank of a release on the NPL establish the precise priorities for the allocation of Fund resources. EPA may also pursue other appropriate authorities to remedy the release, including enforcement actions under CERCLA and other laws. A site's rank on the NPL serves, along with other factors, including enforcement actions, as a basis to guide the allocation of Fund resources among releases.

3. The first sentence of proposed § 300.425(c)(2) is revised as follows: "A state (not including Indian tribes) has designated a release as its highest priority."

Name: **Section 300.425(d)(6). Construction Completion category on the National Priorities List.**

Proposed rule: EPA proposed to establish a new "category" as part of the NPL - the "Construction Completion" category (see 53 FR 51415). The category would consist of: (a) sites awaiting deletion, (b) sites awaiting deletion but for which CERCLA section 121(c) requires reviews of the remedy no less often than five years after initiation, and (c) sites undergoing long-term remedial actions (LTRAs). EPA believes the new category would communicate more clearly to the public the status of cleanup progress among sites on the National Priorities List (NPL).

EPA would shift sites into the Construction Completion category only following approval of interim or final Close Out Reports. EPA would approve the Reports only after remedies have been implemented and are operating properly. Approval of an interim Close Out Report indicates that construction of the remedy is complete, and that it is operating properly, but that the remedy must operate for a period of time before achieving cleanup levels specified in the Record of Decision (ROD) for the site. Approval of a final (including amended) Close Out Report indicates that the remedy has achieved protectiveness levels specified in the ROD(s), and that all remedial actions are complete. The proposal also indicates that EPA believes that sites requiring five-year review under § 300.430(f)(3)(v)(renumbered as final § 300.430(f)(5)(iii)(C)) may, when appropriate, be deleted from the NPL.

Response to comments: All commenters on this policy recommended adoption of the proposal to recategorize sites. One commenter disagreed with EPA's name for the new category, stating that construction at some sites in the category would not be complete. EPA disagrees with this interpretation; as explained above, for both LTRA sites and sites awaiting deletion, construction of the remedy must be complete and operating properly before it may be placed in this new category. Another commenter interpreted EPA's proposal to mean that it would create a new status code on the NPL, rather than a new category, or sub-section. EPA believes a distinct category more clearly provides remedial progress information to the public. EPA has found this to be true with regard to federal facility sites, which have been placed in a separate category of the NPL. Thus, the idea of categorizing sites on the NPL is not a new one. Indeed, the 1985 NCP specifically afforded EPA the discretion to "re-categorize" certain types of sites (see 40 CFR 300.66(c)(7)(1985)). EPA is specifically acknowledging this discretion in final § 300.425(d)(6).

The commenter stated that EPA should seek state concurrence before placing a site under the new status. EPA disagrees that it should seek formal state concurrence to recategorize sites. Recategorization is a mechanical process and does not have regulatory significance; it is merely a better method of communicating site status to the public. Moreover, EPA will recategorize sites only on the basis of approved interim or final Close Out Reports, and states will continue to be involved in remedy inspections and review or preparation of the reports. EPA will obtain state concurrence and solicit public comments before deleting sites from the NPL, pursuant to § 300.425(e).

Another commenter supported the concept of recategorizing sites, particularly those at which only operation and maintenance remains to be conducted. However, the commenter also states that such sites could appropriately be deleted entirely from the NPL. A different commenter suggested that the Construction Completion category should exclude sites requiring only operation and maintenance and that such sites should be deleted from the NPL.

EPA intends that a site requiring only operation and maintenance at the time of construction completion be recategorized as a temporary measure until the process of reviewing the site for possible deletion from the NPL has been completed.

One commenter stated that proposed § 300.430(f)(3)(v) is unclear regarding whether EPA would conduct five-year reviews at sites in certain phases of response, or having certain status vis-a-vis the NPL, i.e., sites still on the NPL, deleted sites, and sites where LTRAs are underway. The commenter went on to state that, if a five-year review indicates that additional action is required at a site that has been deleted from the NPL, EPA must clarify under what authority the action is to be conducted.

EPA will conduct five-year reviews for appropriate sites after initiation of the remedial action. Thus, reviews may be conducted during phases of the remedial action, during LTRA status, and, where appropriate, after a site has been deleted from the NPL. EPA continues to develop its policy on five-year reviews, and plans to issue further guidance on these issues. EPA has discretionary authority to take further action at a deleted site if a review indicates that the remedy is no longer protective. CERCLA 105(e) states that EPA may restore the site to the NPL without re-applying the Hazard Ranking System (HRS), and CERCLA 121(c) provides that EPA make take or require action, if appropriate, following a review. Section 300.425(e)(3) again states this point, and further states that all releases deleted from the NPL are eligible for Fund-financed remedial actions should future conditions warrant such actions.

Another commenter stated that "five-year review" sites should be deleted from the NPL rather than placed in the Construction Completion category. In response, at the time of proposal, EPA announced its view that five-year review sites may be considered "sites awaiting deletion," i.e., deletion candidates. Upon consideration of the issue, EPA believes that it may generally not be appropriate to delete any of these sites before performing at least one review after completion of the remedial action. This is consistent with a recommendation of the Administrator's 90-day study of the Superfund Program, "A Management Review of the Superfund Program," and with OSWER policy.[7]

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[7] See "Performance of Five-Year Reviews and Their Relationship to the Deletion of Sites from the National Priorities List (NPL)(Superfund Management Review: Recommendation No. 2), Memorandum from Jonathan Z. Cannon, Acting Assistant Administrator, OSWER, to Regional Administrators (October 30, 1989); and "Update to the 'Procedures for Completion and Deletion of National Priorities List Sites' -- Guidance Document Regarding the Performance of Five-Year Reviews (Superfund Management Review: Recommendation No. 2)," Memorandum from Henry L. Longest II,

This position reflects an EPA policy decision that in most cases where hazardous substances remain after the completion of remedial action, it is appropriate to act more slowly on deleting the sites from the NPL, consistent with the concern evidenced by Congress in specifically mandating review at least every five years at such sites. This policy is also consistent with the limited purpose of the NPL as an informational list of sites at which CERCLA attention is appropriate (53 FR at 51415-16); the continued inclusion of the site on the NPL does not mean that response action will be taken at the site. See 48 FR 40658, 40659 (Sept. 8, 1983) (quoting CERCLA legislative history).

This is not inconsistent with the long-standing provision on deletion in the 1985 NCP, which provides that "sites may be deleted from or recategorized on the NPL where no further response is appropriate." 40 CFR 300.66(c)(7)(1985) (emphasis added). Thus even if no further action is planned at a five-year review site, recategorization is as appropriate a means of recognizing that status as is deletion. Further, deletion will be considered as part of the review.

EPA also does not view this policy for five-year review sites as inconsistent with EPA policy on deletions. The criteria for deletion in § 300.425(e) provide that "releases may be deleted from ... the NPL where no further response is appropriate," thereby providing considerable flexibility to the Administrator. Further, the rule provides that EPA shall not delete a site from the NPL until the state in which the release was located has concurred, and the public has been afforded an opportunity to comment on the proposed deletion. Thus, the decision to delete is not an automatic one by EPA, but rather is decided as part of a formal public process. It is similarly important to note that a "site awaiting deletion" in the new Construction Completion category will not necessarily be deleted automatically upon recategorization.

One commenter stated that the first five-year review should not occur until five years after the operation and maintenance phase of the response action is complete. EPA disagrees with this comment; some sites will require operation and maintenance indefinitely, and thus adoption of such an approach would result in no five-year review. Further, CERCLA section 121(c) calls for reviews within five years of the "initiation" -- not completion -- of the remedial action. EPA is currently developing a policy regarding timing and conduct of five-year reviews.

Director, Office of Emergency and Remedial Response, to Regional Waste Management Division Directors (OSWER Directive No. 9320.2-3B, December 29, 1989).

Another commenter, though strongly favoring the creation of a new NPL category, recommended that EPA create two new categories: "remedy in long-term operation and maintenance", and "sites awaiting delisting". The commenter asserted that the public would understand such terms more easily than "Construction Completion". EPA disagrees with this comment because the phrase "long-term operation and maintenance" may cause more confusion for the public. EPA believes the commenter inadvertently confused two concepts: "operation and maintenance" and "LTRA." Many NPL sites will require operation and maintenance following deletion from the NPL in order to maintain the protectiveness of the remedy (e.g. cutting grass or maintaining monitoring wells), even though specified cleanup standards have been achieved and criteria for deletion have been met.

An LTRA, on the other hand, is an ongoing remedial action which has not yet achieved the cleanup standards in the ROD. It too may require operation and maintenance after achieving these standards, and after deletion of the site from the NPL. EPA will place an LTRA site in the Construction Completion category based on approval of an interim Close Out Report. EPA will finalize or amend the report when the remedy has achieved cleanup levels specified in the ROD(s). The LTRA will then be categorized on the NPL as either a site awaiting deletion or a five-year review site.

To minimize public confusion and administrative burden, EPA will create at present only one new category. However, EPA plans to denote in the category whether a site is: (a) an LTRA, (b) a site awaiting deletion, or (c) a "five-year review" site awaiting review and/or deletion. (Note that LTRA sites may be placed in the five-year review category upon attainment of the final remediation goals.)

Final rule: Proposed § 300.425 is revised as follows:

1. A new section has been added to the final rule, § 300.425(d)(6), to reflect EPA's long-standing discretion to establish categories of sites on the NPL: "Releases may be categorized on the NPL when deemed appropriate by EPA."

2. In § 300.425(e)(2), the timeframe for state review of notices of intent to delete has been changed to 30 working days (see preamble to § 300.515(h)(3), "State review of EPA-lead documents)."

SECTION 300.430. Remedial investigation/feasibility study and selection of remedy

Introduction

Today EPA is promulgating revisions to the remedial investigation (RI)/feasibility study (FS) and selection of remedy sections of the 1985 NCP. While the framework of this portion of the regulation remains largely as proposed on December 21, 1988, significant changes have been made to respond to comments received and to articulate more clearly the remedy selection goal, expectations and process EPA intends to employ in implementing the Superfund program.

The remedy selection process promulgated today is founded on CERCLA's overarching mandate to protect human health and the environment. This approach emphasizes solutions that can ensure reliable protection over time. Today's rule promotes the aggressive use of treatment technologies to achieve reliable remedies while acknowledging the practical limitations on the use of treatment.

In this approach, EPA seeks to encompass the many statutory mandates while emphasizing the statutory preference for permanent solutions and use of treatment technologies. The approach is tempered by practicability to ensure that the remedies selected are appropriate and that the program responds to the threats posed by the worst toxic waste sites across the nation. Today's requirements for selecting remedies further provide a uniform framework to promote consistency in decision-making.

Today's regulation establishes a process that allows consideration and balancing of site-specific factors in remedy selection. EPA has used this type of decision-making process to select CERCLA remedial actions since the inception of the Superfund program. Revisions contained in today's rule modify the approach by incorporating the new requirements of the 1986 amendments to CERCLA into existing procedures. This approach relies on a process that examines site characteristics and alternative approaches for remediating site problems. This process evaluates remedial alternatives using nine criteria which are based on CERCLA's mandates to determine advantages and disadvantages of the alternatives, thus identifying site-specific trade-offs between options. These trade-offs are balanced in a risk management judgment as to which alternative provides the most appropriate solution for the site problem.

In response to comments requesting further clarification and structure in the remedy selection process, EPA has made changes to provide better guidance on the types of remedies that EPA expects to result from the process; to add more structure to the process by specifying the functional categories of the nine criteria in the rule; and to indicate which criteria are to be emphasized in the balancing process. EPA believes this process ensures the selection of remedial actions that fulfill statutory requirements to protect human health and the environment, comply with ARARs, be cost-effective, and utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. Further, this process considers the full range of factors pertinent to remedy selection and provides the flexibility necessary and appropriate to ensure that remedial actions selected are sensible, reliable solutions for identified site problems.

The approach promulgated in today's rule was supported by numerous commenters. Several expressed the view that alternate remedy selection methods presented in the proposal were inappropriate or inferior to the promulgated approach. Some commenters noted that the promulgated approach includes important criteria that the other approaches do not.

Two distinct groups of commenters who have sharply contrasting views on the goal of the Superfund program opposed the proposed approach that is promulgated today. One group of commenters believes EPA should establish a remedy selection process that adopts as its goal full site restoration and treatment of all material to the extent technically feasible. This approach would limit consideration of cost to the selection of the less expensive of comparably effective treatment technologies. Under this approach, methods of protection that rely on control of exposure (i.e., engineering controls such as capping or other containment systems and institutional controls) could only be used when treatment was technically infeasible. Several of these commenters expressed the view that remedy selection should be more structured and supported either the sequential decision-making approach or the point of departure strategy for remedy selection presented in the proposal.

The other group of commenters critical of the proposed approach believes the Superfund program should seek to achieve protection primarily by controlling exposure to current risks through use of engineering and institutional controls. Treatment would be used only if other controls are not expected to be reliable or greater protection can be achieved through treatment without a significant increase in cost. These commenters generally supported the use of a cost-effectiveness screen in site-specific balancing or the site stabilization strategy for remedy selection presented in the proposal.

The approach EPA promulgates today sets a course for the Superfund program between the two ends of the spectrum reflected in these comments. EPA is establishing as its goal remedial actions that protect human health and the environment, that maintain protection over time, and that minimize untreated waste.

This goal reflects CERCLA's preference for achieving protection through the use of treatment technologies that destroy or reduce the inherent hazards posed by wastes and result in remedies that are highly reliable over time. The purpose of treatment in the Superfund program is to significantly reduce the toxicity and/or mobility of the contaminants posing a significant threat (i.e., "contaminants of concern") wherever practicable to reduce the need for long-term management of hazardous material. EPA will seek to reduce hazards (i.e., toxicity and/or mobility) to levels that ensure that contaminated material remaining on-site can be reliably controlled over time through engineering and/or institutional controls.

Further, the Superfund program also uses as a guideline for effective treatment the range of 90 to 99 percent reduction in the concentration or mobility of contaminants of concern (see preamble discussion below on "reduction of toxicity, mobility or volume" under § 300.430(e)(9)). Although it is most important that treatment technologies achieve the remediation goals developed specifically for each site (which may be greater or less than the treatment guidelines), EPA believes that, in general, treatment technologies or treatment trains that cannot achieve this level of performance on a consistent basis are not sufficiently effective and generally will not be appropriate. EPA believes this 90 to 99 percent reduction treatment guideline allows for the use of an array of technologies and will not preclude the introduction of innovative technologies into the range of effective technologies. EPA believes the remedy selection process should encourage diversification of the range of treatment technologies available for addressing hazardous substances so that the program continues to find more effective, safer, and less costly ways of reducing the hazards posed by the various and often complex materials encountered at Superfund sites.

Along with the program goal, EPA is establishing expectations regarding the extent to which treatment is likely to be practicable for certain types of site situations and problems frequently encountered by the Superfund program. These expectations indicate that EPA intends to place priority on treating materials that pose the principal threats at a given site. The expectations also acknowledge that certain technological, economic and implementation factors may make treatment impracticable for certain types of site problems. Experience has shown that in such situations, remedies that rely on control of exposure through engineering and/or institutional controls to provide protection generally will be appropriate.

The goal and expectations should be considered when making site-specific determinations of the maximum extent to which permanent solutions and treatment can be practicably utilized in a cost-effective manner. Another important part of this framework is the range of alternatives EPA will consider as possible cleanup options. This range reflects the principle that protection of human health and the environment can be achieved through a variety of methods, including treatment, engineering and/or institutional controls and through combinations of such methods. Today's rule reflects the statutory preference for achieving protection of human health and the environment through treatment by emphasizing the development of alternatives that employ treatment as their principal element.

This framework for developing alternatives is one of the major changes to the 1985 NCP which called for the development of alternatives that do not attain, attain, and exceed ARARs, as well as an off-site and no action alternative. The 1985 framework was premised on the implicit assumptions that alternatives would share the same ARARs and that the ability to meet or exceed those requirements corresponded to different levels of protection. Program experience has shown that while alternatives may share chemical- and location-specific ARARs, generally each alternative will have a unique set of action-specific requirements. Additionally, it is now clear that ARARs do not by themselves necessarily define protectiveness. First, ARARs do not exist for every contaminant, location, or waste management activity that may be encountered or undertaken at a CERCLA site. Second, in those circumstances where multiple contaminants are present, the cumulative risks posed by the potential additivity of the constituents may require cleanup levels for individual contaminants to be more stringent than ARARs to ensure protection at the site. Finally, determining whether a remedy is protective of human health and the environment also requires consideration of the acceptability of any short-term or cross-media impacts that may be posed during implementation of a remedial action.

Another major revision to the 1985 NCP promulgated today is the establishment of nine criteria used for the detailed analysis of alternatives that serve as the basis for the remedy selection decision. These nine criteria encompass statutory requirements (specifically the long-term effectiveness factors that must be assessed under CERCLA section 121(b)(1)(A-G)), and include other technical and policy considerations that have proven to be important for selecting among remedial alternatives. The various criteria have been categorized according to their functions in the remedy selection process as threshold, balancing and modifying criteria. This designation demonstrates that protection of human health and the environment will not be compromised by other factors, including cost. Revisions also clarify that trade-offs among alternatives with respect to the long-term effectiveness and permanence they afford and the reductions in toxicity, mobility, or volume they achieve through treatment are the most important considerations in the balancing step by which the remedy is selected.

Name: **Section 300.430(a)(1). Program goal, program management principles and expectations.**

Proposed rule: The preamble to the proposed rule described management principles which EPA intends to apply to the Superfund program and certain expectations regarding the types of remedies that EPA has found to be most appropriate for different types of waste (53 FR 51422). These expectations were developed based on both the preferences and mandates expressed in CERCLA section 121 as well as EPA's practical experience in trying to meet those preferences and mandates. The preamble declared EPA's intent to focus available resources on selection of protective remedies that provide reliable, effective response over the long-term. The expectations envision treatment of the principal threats posed by a site, with priority placed on treating waste that is highly toxic, highly mobile, or liquid; and containment of waste contaminated at low levels, waste technically infeasible to treat and large volumes of waste.

Also included in the expectations was the concept that contaminated ground waters will be returned to their beneficial uses wherever practicable, within a timeframe that is reasonable given the particular circumstances of the site. The preamble explained that institutional controls could be used, as appropriate, to prevent exposures to releases of hazardous substances during remedy implementation and to supplement engineering controls. The preamble also stated that the use of institutional controls should not substitute for active response measures as the sole remedy unless such active measures are determined not to be practicable.

The preamble also described three program management principles developed from program experience to promote the efficiency and effectiveness of the remedial response process. The preamble stated EPA's intent to balance the desire of definitive site characterization and alternatives analysis with a bias for initiating response actions necessary or appropriate to eliminate, reduce or control hazards posed by a site as early as possible. The preamble emphasized the principle of streamlining, which EPA would apply in managing the Superfund program as a whole and in conducting individual remedial action projects. The preamble explained that the bias for action and principle of streamlining may appropriately be considered throughout the life of a remedial project but begin to be evaluated as site management planning is initiated. Site management planning is a dynamic, ongoing and informal strategic planning effort that generally starts as soon as sites are proposed for inclusion on the NPL and continues through the RI/FS and remedy selection process and the remedial design and remedial action phases, to deletion from the NPL.

Response to comments: EPA has placed the program goal, expectations, and management principles into the rule in response to the strong support these principles received from commenters. By including these in the rule, EPA believes the regulation better articulates the objectives of the program. EPA also believes that placing them in the rule itself will ensure that the principles and expectations, although not binding, will remain a part of the codified rule and will not merely be detached preamble language. This will facilitate their use and identification by implementing officials and the public. Specific comments and changes to the rule are discussed below.

1. Program goal. EPA has added a statement of the national goal of the remedy selection process to the final regulation. The goal as expressed in today's rule is to select remedies that will be protective of human health and the environment, that will maintain protection over time and that will minimize untreated waste. Although EPA received no comment specifically addressing a national remedy selection goal, comments on other issues reflected different interpretations of statutory mandates. EPA is articulating a goal in order to reflect the effort of the Superfund program to select remedies that are protective of human health and the environment in the long-term and minimize untreated waste. The concept of this goal is to be maintained throughout the remedy selection process. The evaluation and remedy selection performed using the nine criteria determine the extent to which this goal is satisfied and the extent to which permanent solutions and treatment are practicable.

2. Expectations. EPA has decided to add to the final regulation the program expectations which appeared only in the preamble to the proposed rule. EPA takes this action in response to numerous comments expressing strong support for the principles underlying the expectations and requesting EPA to incorporate the expectations into the regulation. EPA has placed the expectations in the rule to inform the public of the types of remedies that EPA has achieved, and anticipates achieving, for certain types of sites. These expectations are not, however, binding requirements. Rather, the expectations are intended to share collected experience to guide those developing cleanup options. For example, EPA's experience that highly mobile waste generally requires treatment may help to guide EPA to focus the detailed analysis on treatment alternatives, as compared to containment alternatives. In effect, the expectations allow implementing officials to profit from prior EPA learning and thereby avoid duplicative or unnecessary efforts. However, the fact that a proposed remedy may be consistent with the expectations does not constitute sufficient grounds for the

selection of that remedial alternative. All remedy selection decisions must be based on an analysis using the nine criteria.

Today's rule also contains an expectation on the use of innovative technologies that EPA developed in response to numerous comments calling for increased emphasis on the diversification of treatment technologies used in site remediation. EPA supports such diversification and expects that it will generally be appropriate to investigate remedial alternatives that use innovative technologies when such technology offers the potential for comparable or superior treatment performance or implementability, fewer or lesser adverse impacts than other available approaches, or lower costs for similar levels of performance than demonstrated technologies.

Several commenters focused on the need for flexibility and discretion in complying with the various mandates of CERCLA. These commenters supported the expectations discussed by EPA in the preamble to the proposed rule as being consistent with these needs. EPA received the greatest support for the expectations concerning the use of treatment technologies.

EPA expects that treatment will be the preferred means by which to address the principal threats posed by a site, wherever practicable. Principal threats are characterized as waste that cannot be reliably controlled in place, such as liquids, highly mobile materials (e.g., solvents), and high concentrations of toxic compounds (e.g., several orders of magnitude above levels that allow for unrestricted use and unlimited exposure). Treatment is less likely to be practicable when sites have large volumes of low concentrations of material, or when the waste is very difficult to handle and treat (e.g., mixed waste of widely varying composition). Specific situations that may limit the use of treatment include sites where: (1) treatment technologies are not technically feasible or are not available within a reasonable timeframe; (2) the extraordinary size or complexity of a site makes implementation of treatment technologies impracticable; (3) implementation of a treatment-based remedy would result in greater overall risk to human health and the environment due to risks posed to workers or the surrounding community during implementation; or (4) severe effects across environmental media resulting from implementation would occur.

In addition, commenters agreed with EPA that solutions often will involve a combination of methods of providing protection, including treatment and engineering controls and institutional controls. One commenter stated his belief that these expectations embody the extent to which treatment can practicably be utilized in a cost-effective manner on a site-specific basis.

Some commenters concluded that the presence of the expectations in the regulation would enhance private party participation in cleanups by relieving the burden of persuading EPA in each situation that such expectations, or remedies consistent with the expectations, are reasonable and in compliance with CERCLA.

Another commenter, while supporting the expectations, expressed concern that the regulation as proposed would not adequately ensure that the expectations would be achieved. EPA has concluded that the expectations will be of the most use if maintained as general principles to assist in flexible, site-specific decision-making. The expectations may not be appropriate in all cases. By stating "expectations" rather than issuing strict rules, EPA believes that critical flexibility can be retained in the remedy selection process.

This commenter and one other urged the addition of an expectation that treatment residuals and contaminated soils near health-based levels will be controlled through containment rather than treatment. The two commenters recommended language expressing their views. Although EPA generally concurs with the suggested expectation, EPA has not added this specific expectation to the rule. EPA believes the expectations in today's rule generally address the types of waste mentioned by this commenter.

One commenter urged elimination of the expectation that treatment is less likely to be practicable where sites have large volumes of low concentrations of material, or where the waste is very difficult to handle and treat. This commenter argued that the expectations combined with the program management principle of streamlining could be used to avoid studying alternatives in detail and could provide industries with significant incentives to ignore the "overarching mandate" to protect human health and the environment. In response, EPA does not intend or believe that the expectations will be used to ignore practicable, protective alternatives. In any event, EPA is required by statute to select protective remedies, which may include those that involve treatment (preferred) and those that do not.

In essence, EPA interprets this commenter's concern to be that remedies that do not employ treatment cannot be protective of human health and the environment. Today EPA confirms the statement in the preamble to the proposal that the overarching mandate of the Superfund program is to protect human health and the environment from the current and potential threats posed by uncontrolled hazardous waste sites. This mandate applies to all remedial actions and cannot be waived. Consistent with the program expectations, the mandate for remedies that protect human health and the environment can be fulfilled through a variety or combination of means. These means include the recycling or the destruction, detoxification, or immobilization of contaminants through the application of treatment technologies. Protection can also be provided in some cases by controlling exposure to contaminants through engineering controls (such as containment) and/or institutional controls which prevent access to contaminated areas. However, consistent with CERCLA, treatment remains the preferred method of attaining protectiveness, wherever practicable.

3. Management principles. Many commenters urged greater emphasis on the program management principles of a bias for action and streamlining that appeared in the preamble to the proposed rule. These commenters generally believe application of these principles would expedite cleanups and maximize reductions in risks to human health and the environment.

Many commenters advocated applying the streamlining principle to screen unnecessary/duplicative/impracticable remedial action alternatives and to ensure that the detail of the RI/FS for a site is commensurate with the overall risk posed by the site. Several commenters stated that an application of the bias for action principle would encourage early action to prevent further migration of contamination pending the completed remedial action. Consistent with this principle, a commenter suggested revising the first sentence of § 300.430(a) to state that the purpose of the remedial action process is to reduce risk "as soon as site data and information make it possible to do so." EPA agrees with this recommendation and has added this language in a new second sentence in § 300.430(a).

EPA has incorporated the program management principles into today's rule in response to the supportive comments received. EPA believes placement of these principles into today's rule promotes making sites safer and cleaner as soon as possible, controlling acute threats, and addressing the worst problems first.

One commenter argued that EPA lacks the requisite statutory authority to promulgate principles such as a bias for action. In response, EPA was given considerable discretion in CERCLA section 104(a)(1) to decide what action to take in response to releases of hazardous substances. In the NCP, EPA has set out provisions for taking various types of removal and remedial actions. Thus, it is clearly within EPA's discretion to decide how to balance the need for prompt, early actions, against the need for definitive site characterization. The bias for prompt action is wholly consistent with Congress' concern that CERCLA sites be addressed in an expeditious manner. Indeed, in CERCLA section 121(d)(4)(A), Congress specifically contemplated early or interim actions, by allowing EPA to waive ARARs in such cases. Further, a bias for action is consistent with EPA's long-standing policy of responding by distinct operable units at sites as appropriate, rather than waiting to take one consolidated response action.

The 1985 NCP originally codified this policy that remedial actions may be staged through the use of operable units.

EPA received comments urging the Agency to strengthen its commitment to early site action through expanded use of removal actions at NPL sites without foreclosing more extensive remedial actions. In response, EPA encourages the taking of early actions, under removal or remedial authority, to abate the immediate threat to human health and the environment. Early actions using remedial authorities are initiated as operable units. In deciding between using removal and remedial authorities, the lead agency should consider the following: (i) the criteria and requirements for taking removal actions in today's rule; (ii) the statutory limitations on removal actions and the criteria for waiving those limitations; (iii) the availability of resources; and (iv) the urgency of the site problem.

EPA expects to take early action at sites where appropriate, and to remediate sites in phases using operable units as early actions to eliminate, reduce or control the hazards posed by a site or to expedite the completion of total site cleanup. In deciding whether to initiate early actions, EPA must balance the desire to definitively characterize site risks and analyze alternative remedial approaches for addressing those threats in great detail with the desire to implement protective measures quickly. Consistent with today's management principles, EPA intends to perform this balancing with a bias for initiating response actions necessary or appropriate to eliminate, reduce, or control hazards posed by a site as early as possible. EPA promotes the responsiveness and efficiency of the Superfund program by encouraging action prior to or concurrent with conduct of an RI/FS as information is sufficient to support remedy selection. These actions may be taken under removal or remedial authorities, as appropriate.

To implement an early action under remedial authority, an operable unit for which an interim action is appropriate is identified. Data sufficient to support the interim action decision is extracted from the ongoing RI/FS that is underway for the site or final operable unit and an appropriate set of alternatives is evaluated. Few alternatives, and in some cases perhaps only one, should be developed for interim actions. A completed baseline risk assessment generally will not be available or necessary to justify an interim action. Qualitative risk information should be organized that demonstrates that the action is necessary to stabilize the site, prevent further degradation, or achieve significant risk reduction quickly. Supporting data, including risk information, and the alternatives analysis can be documented in a focused RI/FS. However, in cases where the relevant data can be summarized briefly and the alternatives are few and straightforward, it may be adequate and more appropriate to document this supporting information in the proposed plan that is issued for public comment. This information should also be summarized in the ROD. While the documentation of interim action decisions may be more streamlined than for final actions, all public, state, and natural resource trustee participation procedures specified elsewhere in this rule must be followed for such actions.

Several commenters endorsed placing the expectations and management principles into the rule to avoid collection of unnecessary data and evaluation of too wide a range of alternatives. Without providing a specific example, a commenter noted that many past Superfund cleanups have experienced the opposite of a bias for action by including unnecessary and costly data collection and report preparation without reaching conclusions on the recommended site remediation.

EPA agrees that site-specific data needs, the evaluation of alternatives and documentation of the selected remedy should reflect the scope and complexity of the site problems being addressed. This principle, derived from the streamlining principle discussed in the preamble to the proposal, has been incorporated into today's rule. The goal, expectations, and management principles incorporated into the rule, promote the tailoring of investigatory actions to specific site needs.

On a project-specific basis, recommendations to ensure that the RI/FS and remedy selection process is conducted as effectively and efficiently as possible include:

1. Focusing the remedial analysis to collect only additional data needed to develop and evaluate alternatives and to support design.

2. Focusing the alternative development and screening step to identify an appropriate number of potentially effective and implementable alternatives to be analyzed in detail. Typically, a limited number of alternatives will be evaluated that are focused to the scope of the response action planned.

3. Tailoring the level of detail of the analysis of the nine evaluation criteria (see below) to the scope and complexity of the action. The analysis for an operable unit may well be less rigorous than that for a comprehensive remedial action designed to address all site problems.

4. Tailoring selection and documentation of the remedy based on the limited scope or complexity of the site problem and remedy.

5. Accelerating contracting procedures and collecting

samples necessary for remedial design during the public comment period.

Although the level of effort and extent of analysis required for the RI/FS will vary on a site-specific basis, the procedures for remedy selection do not vary by site. The lead agency is responsible for meeting procedural requirements, including support agency participation, soliciting public comment, developing an administrative record, and preparing a record of decision.

A more streamlined analysis during an RI/FS may be particularly appropriate in the following circumstances:

1. Site problems are straightforward such that it would be inappropriate to develop a full range of alternatives. For example, site problems may only involve a single group of chemicals that can only be addressed in a limited number of ways, or site characteristics (e.g., fractured bedrock) may be such that available options are limited. To the extent that obvious, straightforward problems exist, they may create opportunities to take actions quickly that will afford significant risk reduction.

2. The need for prompt action to bring the site under initial control outweighs the need to examine all potentially appropriate alternatives.

3. ARARs, guidance, or program precedent indicate a limited range of appropriate response alternatives (e.g., PCB standards for contaminated soils, Superfund Drum and Tank Guidance, Best Demonstrated Available Technology (BDAT) requirements).

4. Many alternatives are clearly impracticable for a site from the outset due to severe implementability problems or prohibitive costs (e.g., complete treatment of an entire large municipal landfill) and need not be studied in detail.

5. No further action or extremely limited action will be required to ensure protection of human health and the environment over time. This situation will most often occur where a removal measure previously has been taken.

Comments varied in their support for the proposed formalization of the operable unit concept. Some commenters encouraged EPA to make full use of the operable unit concept because it could prevent the worsening of some site problems. Other commenters argued against the use of operable units, stating that Congress intended cleanups to focus on sites, not on artificial subdivisions of sites.

The 1985 NCP originally codified the concept that remedial actions may be staged through the use of operable units (former

NCP § 300.68(c)). Operable units are discrete actions that comprise incremental steps toward the final remedy. Although EPA agrees that total site remediation is the ultimate objective, often it is necessary and appropriate, particularly for complex sites, to divide the site or site problems for effective site management and early action. Operable units may be actions that completely address a geographical portion of a site or a specific site problem (e.g., drums and tanks, contaminated ground water) or the entire site. They may include interim actions (e.g., pumping and treating of ground water to retard plume migration) that must be followed by subsequent actions which fully address the scope of the problem (e.g., final ground water operable unit that defines the remediation level and restoration timeframe). Such operable units may be taken in response to a pressing problem that will worsen if not addressed, or because there is an opportunity to undertake a limited action that will achieve significant risk reduction quickly. Consistent with the bias for action principle in today's rule, EPA will implement remedial actions in phases as appropriate using operable units to effectively manage site problems or expedite the reduction of risk posed by the site.

One commenter perceived operable units as a source of inefficiency. This commenter criticized the extended investigative activities associated with the production of multiple and overlapping RI/FSs on operable units for a single site. The commenter advocated completion of RI/FSs within eighteen months, absent unusual conditions, and implementing operable units only where necessary to reduce an immediate risk to human health and the environment. This latter point was supported by another commenter who feared that use of an operable unit may provide a false impression that the project is progressing rapidly and may result in greater cost due to duplication of work.

In response, EPA has established as a matter of policy the goal of completing RI/FSs (i.e., through ROD signature) generally within 24 months after initiation. EPA agrees that duplication of efforts on RI/FSs should be avoided. However, EPA supports the operable unit concept as an efficient method of achieving safer and cleaner sites more quickly while striving to implement total site cleanups. Although the selection of each operable unit must be supported with sufficient site data and alternatives analyses, EPA allows the ROD for the operable unit to use data and analyses collected from any RI/FS performed for the site. No duplication of investigatory or analytical efforts should occur when selecting an operable unit for a site.

Although supporting the operable unit concept, one commenter argued that unless EPA alleviates the administrative burdens placed on an operable unit, no bias for action will be realized. Another commenter requested clarification of the procedures required to support the initiation of action prior to completion of the RI/FS for the entire site. This commenter cautioned EPA that encouragement of early action could result in actions being taken without a proper understanding of the site. According to a different commenter, application of the streamlining principle could result in additional and unnecessary costs to potential responsible parties by accelerating contracting procedures and collecting samples necessary for remedial design during the public comment period on the RI/FS and proposed plan. This commenter feared that the samples taken before remedy selection may prove irrelevant to the final selected remedy.

Similarly, some commenters requested guidance on operable units and more specificity on implementing the streamlining concept. Some commenters suggested phased RI/FSs and limiting the collection of data. One commenter added that a properly implemented streamlining approach could result in a more focused RI/FS and would minimize the collection of unnecessary data. This commenter cautioned, however, that poorly implemented streamlining could result in insufficient data upon which to base remedy selection, shortened time frames for settlement discussions, or actions that are inconsistent with later remedial actions. In addition, another commenter noted that documentation for the remedial action must be sufficient to support a legal challenge.

EPA acknowledges that the program management principles in today's rule are neither binding nor appropriate in every case; they must be applied as appropriate. The streamlining principle supports data collection and alternatives analyses commensurate with the scope and complexity of the site problem being addressed. The principles focus site investigations and alternatives analyses while maintaining the requirement that sufficient information be obtained for sound decision-making. The ROD for an interim remedy implemented as an operable unit does not necessarily require a separate RI/FS but instead can summarize data collected to date that supports that decision. This procedure provides an adequate basis on which to select an interim remedy and thus safeguards against taking premature action and avoids duplication among RI/FSs performed for the site. For guidance on documenting remedial action decisions, including operable units, see the Interim Final Guidance on Preparing Superfund Decision Documents (June 1989, OSWER Directive 9355.3-02).

Some commenters focused on interim actions, implemented as operable units. These commenters stressed the important role of interim action operable units in furthering the bias for action. According to these commenters, EPA's bias for action should be codified in the regulation to communicate that interim measures may be a legitimate component of the remedy selection process. Another commenter agreed that greater emphasis is needed on the importance of interim measures and added that these interim measures should be consistent with the remedial solution likely to be selected.

EPA encourages the implementation of interim action operable units, as appropriate, to prevent exposure or control risks posed by a site. Further actions will be taken at the site, as appropriate, to eliminate or reduce the risks posed. EPA is adding to today's rule a statement to clarify that operable units, including interim action operable units, must neither be inconsistent with nor preclude implementation of the expected final remedy.

One commenter supported the use of interim measures, when appropriate, and argued that the implementation of these measures should not be made contingent on the selection of a final remedy. According to this commenter, the RI/FS process should consider the interim action as one of the possible remedial alternatives to achieve the long-term site goals. Similarly, another commenter stated that it strongly believes that EPA should use its available funds to achieve cleanup at the greatest number of sites, thereby saving resources and reducing overall risks, rather than trying to attain extremely low levels of risk at a smaller number of sites.

While the bias for action promotes multiple actions of limited scale, the program's ultimate goal continues to be to implement final remedies at sites. The scoping section of today's rule has been amended to make clear that the lead agency shall conduct strategic planning to identify the optimal set and sequence of actions necessary to address the site problems. Such actions may include, as appropriate, removal actions, interim actions and other types of operable units. Site management planning is a dynamic, ongoing, and informal strategic planning effort that generally starts as soon as sites are proposed for inclusion on the NPL and continues through the RI/FS and remedy selection process and the remedial design and remedial action phases, to deletion from the NPL.

This strategic planning activity is the means by which the lead and support agencies determine the types of actions and/or analyses necessary or appropriate at a given site and the optimal timing of those actions. At the RI/FS stage, this effort involves review of existing site information, consideration of current and potential risks the site poses to human health and the environment, an assessment of future data needs, understanding of inherent uncertainties in the process, priorities among site problems and the program as a whole, and prior program experience. The focus of the strategic planning is on taking action at the site as early as site data and information make it possible to do so.

Final rule: Today's rule includes at § 300.430(a)(1) EPA's goal for remedial actions to protect human health and the environment, maintain that protection over time, and minimize the amount of untreated waste. In addition, the rule also sets out expectations regarding the extent to which treatment is likely to be practicable for certain types of situations and problems frequently encountered by the Superfund program. These expectations place priority on treating materials that pose the principal threats at a given site. The expectations also acknowledge that certain technological, economic, and implementation factors make treatment impracticable for certain types of site problems and that other types of controls may be most effective in these situations. The bias for action and streamlining principles are also printed in the rule.

Name: Section 300.430(a)(1). Use of institutional controls.

Proposed rule: Proposed § 300.430(e)(3)(ii) directed that, as appropriate, one or more alternatives shall be developed that are based on engineering controls, such as containment that prevents exposure to hazardous substances, and, as necessary, institutional controls, which limit human activities at or near facilities, to protect health and environment and assure continued effectiveness of response. The preamble to the proposed rule gave "expectations" for remedies, explaining that institutional controls may be used as a supplement to engineering controls over time but should not substitute for active response measures as the sole remedy unless active response measures are not practicable, as determined based on the balancing of the trade-offs among alternatives that is conducted during the selection of the remedy. (53 FR 51423).

Response to comments: Several commenters supported the proposal as is, pointing out that there are situations where institutional controls can be a primary component of remedial action either because treatment is not practicable (as for large volumes of low-toxicity waste) or because natural attenuation will restore a resource in the same time as active remediation.

Several other commenters disagreed with the proposal because they believe that institutional controls are not reliable and are not permitted under the statute as active, permanent remedies, except under limited circumstances. One commenter maintained that institutional controls should never be used except as an interim measure. Another commenter felt that use of institutional controls as the sole remedy could lead to institutionalized pollution, and should only be used if state ARARs are not violated or cleanup is not feasible. Similarly, one commenter feared that the proposal could lead to well restriction areas or the like; the commenter also asserted that only state or local governments, not EPA, have the authority to restrict water use.

EPA agrees that institutional controls should not substitute for more active response measures that actually reduce, minimize, or eliminate contamination unless such measures are not practicable, as determined by the remedy selection criteria. Examples of institutional controls, which generally limit human activities at or near facilities where hazardous substances, pollutants, or contaminants exist or will remain on-site, include land and resource (e.g., water) use and deed restrictions, well-drilling prohibitions, building permits, and well use advisories and deed notices. EPA believes, however, that institutional controls have a valid role in remediation and are allowed under CERCLA (e.g., section 121(d)(2)(B)(ii) appears to contemplate such controls). Institutional controls are a necessary supplement when some waste is left in place, as it is in most response actions. Also, in some circumstances where the balancing of trade-offs among alternatives during the selection of remedy process indicates no practicable way to actively remediate a site, institutional controls such as deed restrictions or well-drilling prohibitions are the only means available to provide protection of human health. Where institutional controls are used as the sole remedy, special precautions must be made to ensure that the controls are reliable. Further, recognizing that EPA may not have the authority to implement institutional controls at a site, § 300.510(c)(1) has been revised to require states to assure that institutional controls implemented as part of the remedial action are in place, reliable and will remain in place after initiation of operation and maintenance (see preamble to § 300.510(c)(1), "State assurances").

Several other commenters recommended revisions to enlarge the scope or availability of institutional controls. These commenters wanted the rule to allow institutional controls to be used as a key component of a remedy whenever they provide similar protection to treatment or other active remedies at much lower cost. The commenters suggested that such controls may be the only cost-effective, practicable remedy at small, isolated, and stable sites, and that such controls would be viable at many federal facilities.

EPA disagrees with suggested revisions to the NCP that would expand or encourage the use of institutional controls in lieu of active remediation measures. CERCLA section 121 states Congress' preference for treatment and permanent remedies, as opposed to simply prevention of exposure through legal controls. The evaluation of the nine criteria (§ 300.430(f)(1)(ii)), including cost and other factors, determines the practicability of active measures (i.e., treatment and engineering controls) and the degree to which institutional controls will be included as part of the remedy.

Several commenters suggested that institutional controls be given a more explicit role in the rule through providing criteria for their use, explicitly allowing for their use in interim actions, or providing that remedies with institutional controls be considered in the detailed analysis. EPA believes that the discussion of an expectation concerning institutional controls in the rule is the appropriate level of detail for guidance in the NCP. Additional, more specific guidance may be developed later, if necessary.

Final rule: EPA has added an expectation on use of institutional controls in § 300.430(a)(1)(iii)(D). EPA is promulgating § 300.430(e)(3)(ii) as proposed.

Name: Section 300.430(b). Scoping.

Existing rule: The 1985 NCP incorporated the scoping section within the remedial investigation (RI) section of the rule (§ 300.68(e)). Under that section, scoping served as a basis for requesting funding for removal actions and for the remedial investigation and feasibility study (RI/FS). The initial analysis performed in scoping indicates the extent to which the release or threat of release may pose a threat to public health or welfare or the environment, indicates the types of removal measures and/or remedial measures suitable to abate the threat, and establishes priorities for implementation. A preliminary determination of ARARs also is performed at this stage.

Proposed rule: As proposed, the purpose of scoping is to define more specifically the type and extent of investigative and analytical studies that are appropriate for a given site. Scoping entails formal planning for both the RI and FS. The proposal separated the scoping section from the RI section to which it was attached under the 1985 NCP. EPA separated these sections in the proposal to highlight the workplan development process and the development of other project plans (such as the sampling and analysis plan, the health and safety plan, and the community relations plan) that occurs in the scoping stage.

During scoping, a conceptual understanding of the site is established by considering in a qualitative manner, the sources of contamination, potential pathways of exposure and potential receptors. The identification of potential ARARs and other criteria, advisories and guidance to be considered will begin during scoping as lead and support agencies initiate a dialogue on potential requirements. The main objectives of scoping are to identify the types of decisions that need to be made, to determine the types (including quantity and quality) of data needed, and to design efficient studies to collect these data. The scope and detail of the investigative studies and alternative development and analysis should be tailored to the complexity of site problems.

Response to comments: One commenter emphasized that aggressive scoping should be encouraged to ensure appropriate streamlining of the RI/FS. Another urged EPA to highlight the scoping process in the preamble or in the rule itself. Another commenter agreed with EPA's view of scoping as an important first step in the RI/FS process, but recommended development of project plans less formal and lengthy than those currently used in the Superfund program.

In response, EPA has incorporated into today's rule the principles of streamlining and a bias for action. These general principles are to be considered in scoping to assist in defining the principal threats posed by the site and to identify likely response scenarios and potentially applicable technologies and operable units. EPA has highlighted scoping by separating it from the text describing the RI and by specifically referencing scoping in the new goal and expectations section of today's rule. EPA believes the principles and expectations promote the development of documents, including project plans, commensurate with the scope and complexity of the site problems being addressed.

One commenter argued that the lead agency or contractors scoping a project should be directed to consult with PRPs or other informed private sector sources about potentially applicable technologies, and give this information serious consideration. This commenter suggested the following language be added to the rule: "In scoping the project, the lead agency shall solicit relevant information from PRPs or other private interests that may be in a position to provide substantive assistance." This commenter would then add a statement requiring the lead agency to consider such information.

Although the suggested language has not been incorporated into today's rule, EPA encourages the early participation of PRPs and the public during scoping and throughout the RI/FS process. To the extent PRPs are known to the lead agency during scoping and a dialogue is occurring among the parties, the PRPs have the opportunity to participate in the planning activities and suggest and evaluate for themselves technologies worthy of consideration for site implementation. For example, during scoping, PRPs can participate in a "technical advisory committee," which gathers expertise on the site conditions and provides substantive assistance to the lead agency. In addition, the workplan for a site begins the administrative record, which is available for review by the public, including PRPs. PRPs and the public can also present information and issues at public meetings. EPA believes it would be inappropriate to establish in the NCP an absolute requirement that the lead agency solicit and consider information provided by PRPs. The lead agency must retain the discretion to determine the scope and quality of information to be collected and evaluated.

Several commenters stressed the importance of early coordination with natural resource trustees, noting that valuable technical assistance can be obtained through such communication. One commenter offered the opinion that it would be beneficial and cost-effective if EPA and the natural resource trustees worked together on the design of the RI/FS sampling and analysis plan. To this end, the commenter suggested that § 300.430(b)(5) and (b)(6) of the proposed rule be reversed, so that notification comes before the development of the plans. Some commenters urged coordination of natural resource damage assessments and response actions, arguing that significant funds may be saved if opportunities to analyze and assess natural resources are not lost during early study and cleanup activities.

In response, EPA agrees that close communication and coordination with trustees for natural resources affected or potentially affected by the release of hazardous substances from the site is essential. (See Subpart G for details on the designation and role of natural resource trustees.) EPA agrees with the commenter's suggestion to reverse the order of the sections numbered 300.430(b)(5) and (b)(6) in the proposal. Today's rule places the notification section (now § 300.430(b)(7)) before the section providing for the development of certain plans (now § 300.430(b)(8)). EPA agrees that coordination with the trustees during the conduct of the natural resource damage assessments and response actions is productive. However, although a trustee may be responsible for certain natural resources affected or potentially affected by a release, the lead agency retains the responsibility for managing activities at the site.

Final rule: Proposed § 300.430(b) is revised as follows:

1. EPA is clarifying certain aspects of the scoping phase in the rule to better reflect the objective of each activity. Section 300.430(b) of the rule clarifies the development of a conceptual understanding of the site, the identification of operable units, the identification of data quality objectives, and the development of the field sampling plan and quality assurance project plan. In addition, the elements of the scoping phase have been reordered to better reflect that the timing of coordination with natural resource trustees may influence the development of sampling plans. This clarification does not reflect a change in the scope or function of the scoping process.

2. Proposed § 300.430(b)(6) is renumbered as § 300.430(b)(7) and is revised as follows (see preamble discussion on § 300.615 for explanation):

If natural resources are or may be injured by the release, ensure that state and federal trustees of the affected natural resources have been notified in order that the trustees may initiate appropriate actions, including those identified in Subpart G of this Part. The lead agency shall seek to coordinate necessary assessments, evaluations, investigations, and planning with such state and federal trustees.

Name: Section 300.430(d). Remedial investigation.

Existing rule: The 1985 NCP states in § 300.68(d) that an RI/FS shall be undertaken, as appropriate, to determine the nature and extent of the threat presented by the release and to evaluate proposed remedies. This includes sampling, monitoring, exposure assessment, and gathering data sufficient to determine the necessity for and proposed extent of the remedial action.

Section 300.68(e) of the 1985 NCP specifically discusses characterization of response actions during the RI. This process consists of examining available information to determine the type of response that may be needed to remedy the release. Initial analysis shall indicate the extent to which the release or threat of release may pose a threat to human health or the environment, indicate the types of removal measures and/or remedial measures suitable to abate the threat, and set priorities for implementation of the measures. The 1985 NCP also includes an extensive list of factors that should be considered in characterizing and assessing the extent to which the release poses a threat. These factors are also used to support the analysis and design of potential response actions.

Proposed rule: The proposed rule separates the discussions, although not the implementation, of the RI and FS, and further separates project scoping from the RI discussion to highlight the workplan development process, which addresses both the RI and FS. The purpose of the RI, as stated in the proposed NCP, is to collect data necessary to adequately characterize the site for the purpose of remedy selection. Site characterization may be conducted in one or more phases to focus sampling efforts and increase the efficiency of the investigation. Site characterization activities are to be fully integrated with the development and evaluation of alternatives in the FS. To characterize the site, the lead agency conducts field investigations and a baseline risk assessment, and initiates treatability studies, as appropriate. The proposed NCP included a list of factors that are to be considered to characterize and assess the extent to which the release poses a threat to human health or the environment or to support the analysis and design of potential response actions (53 FR 51504). This list of factors, while less detailed than the 1985 NCP, is intended to be more inclusive, depending on the site-specific needs. The results of the baseline risk assessment conducted as part of the RI (which includes exposure assessment, toxicity assessment, and risk characterization components) help establish acceptable exposure levels for use in developing remedial alternatives in the FS. Treatability studies are initiated to assess the effectiveness of treatment technologies that may be used as remedial alternatives on site waste. ARARs and, as appropriate, other pertinent advisories, criteria, or guidance related to the location of the site or contaminants present are also to be identified during the RI.

Response to comments: Several commenters addressed RI site characterization issues. One commenter suggested adding the review of state files and the subpoena of company files during the RI to enhance site characterization. In response, EPA notes its commitment to the consideration of the best and most appropriate information available for site characterization and will review state files and require the production of company files as necessary for a site.

Another commenter recommended an alternative approach to RIs for sites with ground-water contamination (the "transport quantification" approach). Under the transport quantification approach, environmental sampling would be phased after the contaminant transport flow paths and mechanisms are evaluated. Transport quantification analysis requires a thorough evaluation of all data available at that time. According to the commenter, the prior quantification and predictive analysis of transport mechanisms may allow more realistic and accurate estimates of actual and potential exposure concentrations. Additionally, the commenter voiced concern over inappropriate investigative methods used in drilling of ground-water monitoring wells and soil gas monitoring.

In response, EPA recognizes the merits of the suggestions and observations made by the commenter. However, EPA believes that technical decisions on which model or investigation technique is best suited to a site is better left to guidance rather than a rule. Of course, EPA may decide to use a transport quantification approach, even if it is not formally included in the NCP. EPA will consider the merits of the approach recommended by the commenter with respect to the goals and limitations of the program. EPA is considering methods to modify investigation of ground-water aquifers to allow more efficient remediation of ground water. EPA is investigating vertical variations in hydraulic conductivity, methods to account for contaminant adsorption, and methods to utilize geophysical techniques, in addition to specific investigation of parameters that may affect monitoring and pump/treatment of ground water, such as screen length. As new information becomes available, it will be incorporated into the implementation of the RI.

In response to comments raised about drilling of ground-water wells through disposal areas, EPA acknowledges that drilling through waste may not be appropriate in some situations. However, at certain sites, it may be necessary to drill through disposal areas. In these cases, EPA is aware of the potential hazards associated with drilling through wastes and takes precautions, such as casing the wells and monitoring the well depths, to ensure that the wells do not become a conduit for the spread of contamination to other aquifers. As to the comment that soil gas monitoring is an inappropriate investigative technique, EPA states that EPA research laboratories are currently studying soil gases and their relation to ground-water contamination. EPA will use the results of these investigations to modify existing practices in ground-water investigations, if appropriate. Interested members of the public may comment on the use of such methods on a site-specific basis during the public comment period on the proposed plan, or they may raise such issues at appropriate times after the initiation of the administrative record.

Final rule: In order to clarify some ambiguities in the proposed rule and to respond to the above-described and other comments, EPA is making certain minor changes to the wording in § 300.430(d) of the rule. Field investigations to assess the nature and extent to which these releases pose a threat are emphasized in the clarifications to the rule.

Name: Section 300.430(d). Remedial investigation -- baseline risk assessment.

Proposed rule: As part of the remedial investigation, the baseline risk assessment is initiated to determine whether the contaminants of concern identified at the site pose a current or potential risk to human health and the environment in the absence of any remedial action. It provides a basis for determining whether remedial action is necessary and the justification for performing remedial actions. The Superfund baseline risk assessment process may be viewed as consisting of an exposure assessment component and a toxicity assessment component, the results of which are combined to develop an overall characterization of risk. As indicated above, these assessments are site-specific and therefore may vary in the extent to which qualitative and quantitative analyses are utilized, depending on the complexity and particular circumstances of the site, as well as the availability of pertinent ARARs and other criteria, advisories or guidance.

During risk characterization, chemical-specific toxicity information, combined with quantitative and qualitative information from the exposure assessment, is compared to measured levels of contaminant exposure levels and to levels predicted through environmental fate and transport modeling. These comparisons determine whether concentrations of contaminants at or near the site are affecting or could potentially affect human health or the environment. Results of this analysis are presented with all critical assumptions and uncertainties so that significant risks can be identified.

Response to comments: One commenter requested clarification on the purpose of risk assessment in the Superfund program, especially the baseline risk assessment. EPA responds that the purpose of risk assessment in the Superfund program is to provide a framework for developing risk information necessary to assist decision-making at remedial sites. Risk assessment provides a consistent process for evaluating and documenting threats to human health and the environment posed by hazardous material at sites. One specific objective of the risk assessment is to provide an analysis of baseline risk (i.e., the risks that exist if no remediation or institutional controls are applied to a site). The results of the baseline risk assessment are used to determine whether remediation is necessary, to help provide justification for performing remedial action, and to assist in determining what exposure pathways need to be remediated. The baseline risk assessment has also superseded the endangerment assessment, because the two have the same goal, function, and methodology.

A second major objective of risk assessment in Superfund is to use the risks and exposure pathways developed in the baseline risk assessment to target chemical concentrations associated with levels of risk that will be adequately protective of human health for a particular site (i.e., remediation goals). A similar process is used to assess threats to ecosystems and the environment and to develop remediation goals based on risk to the environment. The identification of ARARs is not the purpose of the baseline risk assessment, as recommended by one commenter. The identification of ARARs is a separate part of the RI, because many ARARs are not directly risk related. Nevertheless, ARARs should be addressed consistently in the baseline risk assessment, the RI/FS, and remedy selection.

Some commenters supported EPA's use of site-specific risk assessments because, in their view, such assessments more accurately reflect the variety of site conditions. Several comments, however, argued against use of a site-specific risk assessment to evaluate baseline risks and to establish remediation goals. One commenter stated that EPA should be applying either ARARs or a generic set of nationally applicable contaminant concentration standards at all sites to ensure consistent and uniform cleanup decisions. This commenter also felt that the use of site-specific risk assessments was illegal and served only to confuse the public about the basis for decisions to protect human health and the environment.

EPA agrees with the commenter and applies ARARs consistently at sites nationwide, as appropriate to develop remediation goals. However, ARARs generally do not provide an adequate basis on which to determine site risks, which are complex and often cannot be reduced to a single number. Further, EPA notes that CERCLA requires that all Superfund remedies be protective of human health and the environment but provides no guidance on how this determination is to be made other than to require the use of ARARs as remediation goals, where these ARARs are related to protectiveness. Under CERCLA (as under other environmental statutes), EPA relies heavily on information concerning contaminant toxicity and the potential for human exposure to support its decisions concerning "protectiveness." EPA's risk assessment methods provide a framework for considering site-specific information in these areas in a logical and organized way. EPA agrees that a uniform process should be used to develop risk assessments and cleanup levels. EPA disagrees with the commenter who advocates national cleanup standards, however, because the specific concentrations developed for one site may not be appropriate for another site because of the nature the site, the waste, and the potential exposures as noted above. If EPA does identify situations in which uniform national standards under CERCLA appear to be feasible and appropriate, it may decide to develop such standards.

The decision to perform site-specific risk assessments is consistent with CERCLA section 104(i)(6), which requires the ATSDR to perform health assessments for facilities on the proposed and final NPL. As explained in section 104(i)(6)(F), these health assessments shall include assessments of the "potential risk" to human health posed by "individual sites", based on such site-specific factors as the "nature and extent of contamination" and the "existence of potential pathways of human exposure."

EPA recognizes the logical advantages of establishing consistent preliminary remediation goals at sites where contamination and exposure considerations are similar. To the degree possible, EPA makes use of chemical-specific ARARs in determining remediation goals for Superfund sites. However, because these standards are established on a national or statewide basis, they may not adequately consider the site-specific contamination or the cumulative effect of the presence of multiple chemicals or multiple exposure pathways and, therefore, are not the sole determinant of protectiveness.

EPA does agree that a uniform process should be used to develop risk assessments and cleanup levels. To improve program efficiency and consistency, EPA is providing extensive guidance for characterizing site-specific risks and identifying preliminary remediation goals to protect human health and the environment in two guidance documents: "Risk Assessment Guidance for Superfund: Human Health Evaluation Manual, Part A" No. 9285.701A, July 1989 (Interim Final) and the "Risk Assessment Guidance for Superfund Volume II: Environmental Evaluation Manual," EPA/540/1-89/001, March 1989 (Interim Final) hereafter referred to as risk assessment guidance. The "Human Health Evaluation Manual" is a revision of the "Superfund Public Health Evaluation Manual" (October 1986) and also replaces the "Endangerment Assessment Handbook."

EPA received many comments on the methodology EPA uses to conduct site-specific risk assessments. EPA conducts an exposure assessment to identify the magnitude of actual or potential human or environmental exposures, the frequency and duration of these exposures, and the routes by which receptors are exposed. This exposure assessment includes an evaluation of the likelihood of such exposures occurring and provides the basis for the development of acceptable exposure levels.

Some commenters wanted specific clarification of the meaning of the "reasonable maximum exposure scenario" and how it is to be used. Some said that the methodology results in overstated and unrealistic risks and that the procedures provide significantly biased estimates of risks that are several orders of magnitude greater than actual risks. Several commenters argued that not only did the risk assessment methodology that Superfund has used in the past overestimate risk, but that the proposal's use of a "reasonable maximum exposure scenario" would institutionalize this overestimation of risk. Some stated that this overestimation of risk was especially a problem because both exposures and the toxicity of chemicals are overestimated. The combination of the two in risk characterization leads to the overstatement of risk. Other commenters favored the use of the reasonable maximum exposure scenario and recommended its inclusion in the rule. EPA will continue to use the reasonable maximum exposure scenario in risk assessment, although EPA does not believe it necessary to include it as a requirement in the rule.

EPA responds to the requests for clarification of the reasonable maximum exposure scenario and the baseline risk assessment in the remainder of this section. In the Superfund program, the exposure assessment involves developing reasonable maximum estimates of exposure for both current land use conditions and potential future land use conditions at each site. The exposure analysis for current land use conditions is used to determine whether a human health or environmental threat may be posed by existing site conditions. The analysis for potential exposures under future land use conditions is used to provide decision-makers with an understanding of exposures that may potentially occur in the future. This analysis should include a qualitative assessment of the likelihood that the assumed future land use will occur. The reasonable maximum exposure estimates for future uses of the site will provide the basis for the development of protective exposure levels.

Several commenters stated that EPA's exposure assessment methodology overestimates risk, especially if worst-case assumptions are used. EPA is clarifying its policy of making exposure assumptions that result in an overall exposure estimate that is conservative but within a realistic range of exposure. Under this policy, EPA defines "reasonable maximum" such that only potential exposures that are likely to occur will be included in the assessment of exposures. The Superfund program has always designed its remedies to be protective of all individuals and environmental receptors that may be exposed at a site; consequently, EPA believes it is important to include all reasonably expected exposures in its risk assessments. However, EPA does agree with a commenter that recommended against the use of unrealistic exposure scenarios and assumptions. The reasonable maximum exposure scenario is "reasonable" because it is a product of factors, such as concentration and exposure frequency and duration, that are an appropriate mix of values that reflect averages and 95th percentile distributions (see the "Risk Assessment Guidance for Superfund: Human Health Evaluation Manual").

EPA does agree with one commenter that the likelihood of the exposure actually occurring should be considered when deciding the appropriate level of remediation, to the degree that this likelihood can be determined. The risk assessment guidance referenced above is designed to focus the assessment on more realistic exposures. EPA has adopted these positions as policy and has not revised the regulation. In addition, EPA agrees that risk assessments conducted for the Superfund should take into consideration background concentrations and conditions and should identify these critical assumptions and uncertainties in its risk assessments.

One commenter asked EPA to clarify that both actual and potential risks will be investigated in the baseline risk assessment. When considering current land use, the baseline risk assessment should consider both actual risks due to current conditions and potential risks assuming no remedial action. For example, these potential risks could arise by the migration of contaminants through ground water to wells that are currently uncontaminated. Future land use, where it is different from current use, is an evaluation of only potential exposures since the future land use addresses a potential situation. EPA is clarifying the language in the rule to indicate that both actual and potential exposure routes and pathways should be considered.

In considering land use, Superfund exposure assessments most often classify land into one of three categories: (1) residential, (2) commercial/industrial, and (3) recreational. EPA also considers the ecological use of the property and, as appropriate, agricultural use. In general, the baseline risk assessment will look at a future land use that is both reasonable, from land use development patterns, and may be associated with the highest (most significant) risk, in order to be protective. These considerations will lead to the assumption of residential use as the future land use in many cases. Residential land use assumptions generally result in the most conservative exposure estimates. The assumption of residential land use is not a requirement of the program but rather is an assumption that may be made, based on conservative but realistic exposures, to ensure that remedies that are ultimately selected for the site will be protective. An assumption of future residential land use may not be justifiable if the probability that the site will support residential use in the future is small. Where the likely future land use is unclear, risks assuming residential land use can be compared to risks associated with other land uses, such as industrial, to estimate the risk consequences if the land is used for something other than the expected future use.

Some commenters recommended performing the baseline risk assessment assuming that institutional controls were in place and effective at preventing exposure. EPA disagrees that the baseline risk assessment is the proper place to take institutional controls into account. The role of the baseline risk assessment is to address the risk associated with a site in the absence of any remedial action or control, including institutional controls. The baseline assessment is essentially an evaluation of the no-action alternative. Institutional controls, while not actively cleaning up the contamination at the site can control exposure and, therefore, are considered to be limited action alternatives. The effectiveness of the institutional controls in controlling risk may appropriately be considered in evaluating the effectiveness of a particular remedial alternative, but not as part of the baseline risk assessment.

Some commenters stated that use of EPA's toxicity values will lead to overestimation of risk because they incorporate uncertainty factors or "margins of safety" that will bias the estimate of risk. EPA responds that the toxicity assessment component of Superfund risk assessment considers the following: (1) the types of adverse health or environmental effects associated with chemical exposures; (2) the relationship between magnitude of exposures and adverse effects; and (3) related uncertainties such as the weight-of-evidence for a particular chemical's carcinogenicity in humans. EPA recognizes that toxicity values do incorporate "uncertainty factors." Because the toxicity information is usually derived from studies of industrial workers or test animals, the size of these uncertainty factors is generally determined by the confidence that effects seen in these studies will manifest themselves in humans exposed at Superfund sites. Larger uncertainty factors are generally used to ensure that protective levels are identified when considering data with greater uncertainty. It should be noted that weights-of-evidence (and uncertainty factors) are not directly related to toxicity. For example, a high weight-of-evidence indicates only a high confidence that a chemical will cause cancer in humans. A high confidence in a toxicity value reflects a consensus that the value is not likely to change.

One commenter argued that EPA, or other lead agency, must consider information on toxicity that PRPs or interested parties bring to their attention during the public comment period. In response, EPA will, of course, consider such public comments submitted on toxicity. However, it is important to note that the Superfund risk assessment process typically relies heavily on existing toxicity information or profiles that EPA has developed on specific chemicals. EPA believes that the use of a consistent data base of toxicological information is important in achieving comparability among its risk assessments. This information generally includes estimated carcinogen exposures that may be associated with specific lifetime cancer risk probabilities (risk-specific doses or RSDs), and exposures to noncarcinogens that are not likely to present appreciable risk of significant adverse effects to humans (including sensitive subgroups) over lifetime exposures (reference doses or RfDs). EPA has also developed toxicity information for some ecosystem receptors. Where no toxicological information is available in EPA's data base, then EPA routinely considers other available information, including information provided by PRPs or other interested parties. Depending on the evidence, however, EPA may feel it is not appropriate to assess the toxicity of specific chemicals quantitatively because of the questions of reliability and consistency in data development. EPA may decide to address these chemicals qualitatively.

The results of the baseline risk assessment are used to understand the types of exposures and risks that may result from Superfund sites. Key assumptions and uncertainties in both contaminant toxicity and human and environmental exposure estimates must be documented in the baseline risk assessment, as well as the sources and effects of uncertainties and assumptions on the risk assessment results. Exposure assumptions or other information, such as additional toxicity information, may be evaluated to determine whether the risks are likely to have been under- or overestimated. These key assumptions and uncertainties must also be considered in developing remediation goals.

Several commenters suggested that the baseline risk assessment should be used to determine whether particular requirements were applicable or relevant and appropriate for a site. EPA believes that this determination must be made independently from the risk assessment, although EPA agrees that the assumptions used in the risk assessment should be consistent with those used to determine what requirements will be ARAR for a site. Risk assessment and ARARs serve different functions. The identification of ARARs is used to identify remediation goals and to indicate how remedial alternatives are to be implemented. In contrast, the risk assessment is a technical analysis of the risks posed by hazardous materials at a site. Consequently, it would be inappropriate for these two elements of the RI/FS to be done together.

Final rule: Proposed § 300.430(d)(4) of the rule has been clarified to indicate that both current and potential exposures and risks are to be considered in the baseline risk assessment. No other changes have been made to the rule on risk assessment. The reference to advisories, criteria or guidance in § 300.430(d)(3) has been modified (see preamble section below on TBCs).

Name: Section 300.430(e). Feasibility study.

Existing rule: The 1985 NCP states in § 300.68(d) that a remedial investigation/feasibility study (RI/FS) shall, as appropriate, be undertaken to determine the nature and extent of the threat presented by the release and to evaluate proposed remedies. Part of the RI/FS may also involve assessing whether the threat can be prevented or minimized using source control measures or whether additional actions will be necessary because the hazardous substances have migrated from the area of their original location.

The 1985 NCP discusses FS development of alternatives in § 300.68(f), stating that to the extent it is possible and appropriate, at least one alternative should be developed in each of the following categories: (1) treatment alternatives; (2) alternatives that attain ARARs; (3) alternatives that exceed ARARs; (4) alternatives that do not attain ARARs; and (5) a no-action alternative. The alternatives should, as appropriate, consider and integrate waste minimization, destruction, and recycling.

The alternatives developed under § 300.68(f) are subject to an initial screening to narrow the list of potential remedial actions for further detailed analysis. The alternatives that remain after the initial screening must undergo a detailed analysis to evaluate and analyze each alternative against a set of specific criteria. The results of this analysis provide the basis for identifying the preferred alternative.

As specified in § 300.68(i), the appropriate extent of remedy will be determined by the lead agency's selection of a cost-effective remedial alternative that effectively mitigates and minimizes threats to, and provides adequate protection of, public health and welfare and the environment. This determination will require that a remedy, except in certain specified situations, attain or exceed federal public health and environmental ARARs. In selecting the appropriate remedy, the lead agency will consider cost, technology, reliability, administrative and other concerns, and their relevant effects on public health and welfare and the environment. If there are no ARARs, the lead agency will select the cost-effective alternative that effectively mitigates and minimizes threats, and provides adequate protection to public health and welfare and the environment.

Proposed rule: The requirements of SARA led to significant changes in the feasibility study section of the 1985 NCP, primarily in the range of alternatives that are developed for consideration in the FS and in the development of the nine criteria, based on mandates and factors to consider specified by the statute, for analysis of the alternatives. The proposed rule separates the discussion of the FS from the RI. In § 300.430(e), the proposed NCP states that the primary objective of the FS is to ensure that appropriate remedial alternatives are developed and evaluated such that relevant information concerning the waste management options can be presented to a decision-maker and an appropriate remedy selected. The regulation requires the development and evaluation of alternatives to reflect the scope and complexity of the remedial action under consideration and the site problems being addressed. During the FS, alternatives are developed to protect human health and the environment by eliminating, reducing, and/or controlling risks posed through each pathway by a site. The number and type of alternatives that are analyzed is determined according to site-specific circumstances.

The first step in the FS process involves developing remedial action objectives for protecting human health and the environment which should specify contaminants and media of concern, potential exposure pathways, and preliminary remediation goals. The preliminary remediation goals are concentrations of contaminants for each exposure route that are believed to provide adequate protection of human health and the environment based on preliminary site information. These goals are also used to assist in setting parameters for the purpose of evaluating technologies and developing remedial alternatives. Because these preliminary remediation goals typically are formulated during project scoping or concurrent with initial RI activities (i.e., prior to completion of the baseline risk assessment), they are initially based on readily available environmental or health-based ARARs (e.g., maximum contaminant levels (MCLs)), ambient water quality criteria (WQC)) and other criteria, advisories, or guidance (e.g., reference doses (RfDs)). As new information and data are collected during the RI, including the baseline risk assessment, and as additional ARARs are identified during the RI, these preliminary remediation goals may be modified as appropriate to ensure that remedies comply with CERCLA's mandate to be protective of human health and the environment and comply with ARARs.

During the development and analysis of alternatives, the risks associated with potential alternatives, both during implementation and following completion of remedial action, are assessed, based on the reasonable maximum exposure assumptions and any other controls necessary to ensure that exposure levels are protective and can be attained. These are generally assessed for each exposure route unless there are multiple exposure routes where combined effects may have to be considered. For all classes of chemicals, EPA uses health-based ARARs to set remediation goals, when they are available. When health-based ARARs are not available or are not sufficiently protective due to multiple exposures or multiple contaminants, EPA sets remediation goals for noncarcinogenic chemicals such that exposures present no appreciable risk of significant adverse effects to individuals, based on comparison of exposures to the concentration associated with reliable toxicity information such as EPA's reference doses. Similarly, when an ARAR does not exist for carcinogens, EPA selects remedies resulting in cumulative risks that fall within a proposed range of 10^{-4} to 10^{-7} incremental individual lifetime cancer risk (revised in final rule to 10^{-4} to 10^{-6}), based on the use of reliable cancer potency information such as EPA's cancer potency factors. In addition, EPA will set remediation goals for ecological and environmental effects based on environmental ARARs, where they exist, and levels based on site-specific determination to be protective of the environment.

Once the remediation goals have been established, potentially suitable technologies, including innovative technologies are also identified, evaluated, and assembled into alternative remedial actions that are designed to meet the remediation goals established according to the principles stated in the previous paragraph. The proposed NCP directs that certain types of alternatives must be developed, as appropriate, for source control and ground-water response actions, and describes the requirements for developing innovative treatment alternatives and no-action alternatives. The short- and long-term aspects of three criteria (i.e., effectiveness, implementability, cost), will, as appropriate, guide the development and screening of alternatives.

Alternatives that remain after the initial screening must undergo a detailed analysis that consists of an assessment of individual alternatives against each of the nine evaluation criteria. These criteria are:

(1) Overall protection of human health and the environment;
(2) Compliance with ARARs;
(3) Long-term effectiveness and permanence;
(4) Reduction of toxicity, mobility, or volume;
(5) Short-term effectiveness;
(6) Implementability;
(7) Cost;
(8) State acceptance; and
(9) Community acceptance.

Response to comments: 1. Remedial action objectives and remediation goals. One commenter recommended that remedial action objectives be established in the RI rather than the FS because the commenter feels they are needed early in the process so that they may be used as part of the baseline risk assessment. EPA agrees that remedial action objectives are needed early in the process. However, EPA believes that putting the remediation goals as the first step of the FS accomplishes this objective and does not delay the development of remediation goals because the RI and FS are not sequential but rather concurrent processes. In fact, remediation objectives and goals are initially developed at the workplan stage, prior to the commencement of RI/FS activities. In addition, the remediation goals are not necessary for the baseline risk assessment. Rather, the results of the baseline risk assessment are used to either confirm that the preliminary remediation goals are indeed protective or to lead to the revision of the remediation goals in the proposed plan.

Another commenter suggested that preliminary remediation goals be reviewed when developing the remedial action objectives. This comment reflects widespread confusion about the remedial action objectives and remediation goals. Several commenters asked for clarification of these two concepts. The remedial action objectives are the more general description of what the remedial action will accomplish. Remediation goals are a subset of remedial action objectives and consist of medium-specific or operable unit-specific chemical concentrations that are protective of human health and the environment and serve as goals for the remedial action. The remedial action objectives aimed at protecting human health and the environment should specify: (1) the contaminants of concern, (2) exposure routes and receptors, and (3) an acceptable contaminant level or range of levels for each exposure medium (i.e., a preliminary remediation goal). Remedial action objectives include both a contaminant level and an exposure route recognizing that protectiveness may be achieved by reducing exposure as well as reducing contaminant levels.

As noted above, the preliminary remediation goals are the more specific statements of the desired endpoint concentrations or risk levels. Initially, they are based on readily available information, such as chemical-specific ARARs (e.g., MCLs, WQCs) or concentrations associated with the reference doses or cancer potency factors. As the RI proceeds and information from the baseline risk assessment becomes available, the preliminary goals may be modified due, among other things, to consideration of site-related exposure through multiple exposure pathways or exposure to multiple chemicals, either of which may raise the cumulative risk from chemicals of concern at the site out of the risk range. The initial development of preliminary remediation goals is not intended to be a lengthy undertaking, although remediation goals are revised throughout the RI/FS process as additional information becomes available.

The development of preliminary remediation goals serves to focus the development of alternatives on remedial technologies that can achieve the remedial goals, thereby limiting the number of alternatives to be considered in the detailed analysis. This focusing is one means of implementing the program's expectation for streamlining the remedial process. Information to develop final remediation goals is developed as part of the RI/FS process. Consequently, the use of preliminary remediation goals does not preclude the development and consideration or selection of alternatives that attain other risk levels. Final selection of the appropriate level of risk is made based on the balancing of criteria in the remedy selection step of the process. Language in the regulation has been revised to clarify the development of remediation goals.

One commenter felt the remediation goals should be based only on ARARs and that EPA has no authority to require compliance with anything but ARARs, although the commenter acknowledges that other information may be necessary when ARARs are not available. EPA disagrees that it has no authority to comply with anything but ARARs. ARARs do not exist for all exposure media (e.g., certain types of contaminated soil) or for all chemicals, and therefore, EPA must use other information to set remediation goals that will ensure protection of human health and the environment as required by statute. EPA intends that this will focus on the EPA-developed toxicity information (cancer potency factors and the reference doses for noncarcinogenic effects). If neither ARARs nor EPA-derived toxicology information are available, other information will be used, as necessary, to determine what levels are necessary to protect human health and the environment (e.g., state guidelines on what is protective for a certain chemical).

Where ARARs do not exist or where the baseline risk assessment indicates that cumulative risks -- due to additive or synergistic effects from multiple contaminants or multiple exposure pathways -- make ARARs nonprotective, EPA will modify preliminary remediation goals, as appropriate, to be protective of human health and the environment. For cumulative risks due to noncarcinogens, EPA will set the remediation goals at levels for individual chemicals such that the cumulative effects of exposure to multiple chemicals will not result in adverse health effects. EPA is clarifying the language in the rule in response to a commenter to indicate that an acceptable exposure for noncarcinogens is one to which human populations, including sensitive subgroups such as pregnant women and children, may be exposed without adverse effects during a lifetime or a part of a lifetime, incorporating an adequate margin of safety. The phrase "part of a lifetime" is added to clarify that protective levels will be set for less than lifetime exposures, as appropriate. In general, acceptable chemical concentrations are lower for lifetime exposure than other exposure durations.

EPA will set remediation goals for total risk due to carcinogens that represent an excess upperbound lifetime cancer risk to an individual to between 10^{-4} to 10^{-6} lifetime excess cancer risk. A cancer risk of 10^{-6} will serve as the point of departure for these remediation goals. EPA is clarifying, based on a recommendation from a commenter, that all preliminary remediation goals will be set so that they are protective for sensitive subpopulations, such as pregnant women and children. Comments on the use of a cancer risk range and a point of departure for the establishment of remediation goals are addressed in preamble sections below.

Remedial action objectives and remediation goals should be set for appropriate environmental media, and performance standards established for selected engineering controls and treatment systems including controls implemented during the response measure. While points of compliance for attaining these remediation levels are established on a site-specific basis, as supported by some commenters, there are general policies for establishing points of compliance. For ground water, remediation levels should generally be attained throughout the contaminated plume, or at and beyond the edge of the waste management area when waste is left in place. For air, the selected levels should be established for the maximum exposed individual, considering reasonably expected use of the site and surrounding area. For surface waters, the selected levels should be attained at the point or points where the release enters the surface waters. (See preamble section on ARARs for further information on points of compliance.)

One commenter objected to the use of the "reasonable maximum exposure scenario" in the development of remediation goals, as described in the preamble to the proposed rule. In particular, the commenter objected to the use of the reasonable maximum exposure concept given the lack of definition and criteria on which to apply it. EPA believes that Superfund remedies need to be protective of all individuals exposed through likely exposure pathways, not just large populations, as suggested by another commenter. To that end EPA developed the concept of reasonable maximum exposure, which is designed to include all exposures that can be reasonably expected to occur, but does not focus on worst-case exposure assumptions. EPA has clarified the definitions and discussion of the reasonable maximum exposure in today's preamble discussion of the baseline risk assessment.

Another commenter expressed concern that even though a risk assessment shows a particular remedy is protective, EPA will set remediation goals at more stringent levels based on policy, criteria, or guidelines (not regulations). EPA responds that it is the goal of the Superfund program to select remedies that protect human health and the environment, maintain that protection over time, and minimize of untreated waste. The risk assessment is one factor in the determination of what is protective. EPA does not arbitrarily select remediation goals that exceed levels determined to be protective.

2. Development and screening of alternatives. Regarding the development of alternatives, several commenters stated that there is no justification for requiring an array of alternatives to be developed in every situation. Commenters were particularly concerned about situations where certain options were precluded by site conditions (e.g., municipal landfills where treatment of all site wastes is impracticable). One commenter suggested that § 300.430(e)(3)(ii) be deleted, since, in the commenter's opinion, there was no justification for requiring a containment alternative to be developed for every Superfund site, even when the scoping phase indicated that a range of treatment-based remedies is appropriate. Another commenter recommended specific revisions to § 300.430(e) to clarify this point.

EPA agrees with the commenter that focusing the development of alternatives only on those that show promise in achieving the goals of the Superfund program is a significant means by which the program can streamline the process and achieve more rapid cleanup. However, EPA feels that this flexibility is already present in the rule which repeatedly states that alternatives should be developed, as appropriate, for the particular situation at the site. This means that if treatment is not practicable for all wastes at the site, then complete treatment need not be included as an alternative. Alternatively, if it is clear that treatment will be part of the remedy, alternatives that rely solely on containment or institutional controls and that do not include treatment need not be considered. This practice is consistent with the program expectations discussed above.

Two commenters stated that the proposed approach for development and screening of alternatives is biased against innovative technologies, since there appears to be a strong tendency for EPA to select remedies that have been previously proven to be successful. One commenter asserted that it was not clear how EPA would evaluate innovative technologies in the screening analysis. EPA would like to clarify that it does not intend to inhibit the development of innovative technologies in the development and screening of alternatives. EPA has deleted the requirement in the final rule that innovative technologies must offer "better" performance than proven technologies. Instead, EPA has stated its intent to consider those innovative technologies that offer the potential for comparable or superior performance or implementability; fewer or lesser adverse impacts than other available approaches; or lower costs for similar levels of performance than demonstrated treatment technologies. By providing for the consideration of innovative technologies, EPA intends to eliminate from consideration only those innovative technologies that have little potential for performing well at specific sites.

As part of the encouragement of innovative technologies that EPA expects to result from this provision, EPA is emphasizing the need for performing treatability studies earlier in the remedial process. Because innovative technologies may not have been as thoroughly demonstrated, treatability studies during the RI/FS may be necessary to provide information sufficient for an appropriate evaluation of these technologies. The goal of treatability studies is to establish through the use of good science and engineering, the probable effectiveness of innovative technologies. EPA has issued guidance that further encourages the use of innovative treatment technologies in "Advancing the Use of Treatment Technologies for Superfund Remedies" (OSWER Directive 9355.0-26).

One commenter requested that § 300.430(e)(3) be revised to clarify that off-site disposal in a secure facility without treatment may be selected as a partial or complete remedy. The commenter also addressed in detail one particular alternative that the NCP and guidance should suggest for consideration and analysis (i.e., use of the site, once remediated, as a solid waste management unit). EPA agrees with the commenter that off-site disposal without treatment may be selected as the remedy in appropriate circumstances, such as where the site has high volumes of low toxicity waste. However, the statute clearly indicates that this is the least preferred alternative. EPA believes that this comment most directly addresses the remedy selection, not the feasibility study, and has modified proposed § 300.430(f)(3)(iii) (§ 300.430(f)(1)(ii)(E) in the final rule) to acknowledge that off-site disposal without treatment can potentially be an appropriate alternative while recognizing the statutory bias against it. As to the commenter's second point, nothing in the NCP prohibits the use of remediated sites as RCRA solid waste management units, provided all requirements under RCRA and other applicable laws, including permitting requirements, are met, and any CERCLA off-site policy/rule requirements are satisfied (OSWER Directive No. 9834.11 (November 13, 1987); 40 CFR 300.440 (proposed)(53 FR 48218, November 29, 1988)).

With reference to the screening of alternatives, several commenters supported EPA's proposal to allow the elimination of alternatives at the screening stage on the basis of cost. Some of these commenters suggested that determination of cost-effectiveness be made an explicit screening step, noting that Congress requires that remedies be cost-effective. They argued that inadequate consideration of cost will lead to inefficient use of the fund and may result in some sites not being addressed. One commenter stated that the inability to eliminate cost-ineffective remedies early in the remedy selection process results in a misallocation of time, effort, and funds.

Other commenters opposed using cost as a criterion during the preliminary screening of alternatives. One commenter argued that many alternatives are rejected based on inadequate cost data. Another commenter stated that eliminating remedial alternatives based on consideration of cost before the ultimate health-based standards or levels of control are determined was inappropriate and illegal.

In response to comments received on the role of cost in the development and screening of alternatives, EPA has clarified the role of cost in screening of alternatives. Screening is to be performed to eliminate from further consideration those alternatives that are not effective, not implementable, or whose costs are grossly excessive for the effectiveness they provide. This last category would include those situations where cost is so excessive that a remedy is virtually unimplementable and is, therefore, impracticable to consider. Specifically, when alternatives vary significantly in their effectiveness, cost may be considered in conjunction with other factors to determine which alternatives are inordinately costly for the effectiveness they provide. For example, where total treatment of a large municipal landfill has been considered initially as a remedial alternative, this alternative will likely be eliminated from further consideration due to the large volume of material for which treatment capacity is not available and for which costs are extremely high.

The other situation where cost may result in the elimination of an alternative during screening is where two or more alternatives are determined to provide similar levels of effectiveness and implementability by using a similar method of treatment or engineering control but their costs vary significantly. In this case, cost can be used to eliminate from further consideration the more costly alternatives. For example, if soil washing and bioremediation are expected to be similarly effective, but bioremediation is significantly more costly, the bioremediation alternative could be eliminated from further consideration while the soil washing option would be carried through to detailed analysis.

One commenter argued against considering cost in screening because the use of potentially inadequate cost data available in this stage of the remedial process may result in the elimination of viable alternatives. EPA responds that while cost data are continuously being developed, at the screening stage cost data of sufficient quality are usually available to determine whether the cost of an alternative is "grossly excessive" or significantly more costly for the results it provides. EPA believes that this screening should be used to help streamline the detailed analysis.

Finally, one commenter suggested that if there is proper coordination with natural resource trustees during the development of alternatives, trustee recommendations concerning, for example, appropriate mitigation for wetlands impacts and cost-effective restorations, may be incorporated into project plans. The commenter believed this would facilitate trustee determinations as required in section 122(j)(2) of CERCLA. EPA agrees that coordination with natural resource trustees during the development of alternatives is important. Today's rule indicates in several sections (300.615(c), 300.410(g), and 300.430(b)(7)) that the lead agency should seek to coordinate with the natural resource trustees. In fact, § 300.615 of this rule addresses a variety of natural resource trustee issues, including coordination cooperation between multiple trustees and the lead agency.

Final rule: Several changes are being made to proposed § 300.430(e), the feasibility study section, primarily to clarify the feasibility study role and process.

1. The kinds of alternatives that are developed during the feasibility study have been expanded to indicate that recycling may be used to protect human health and the environment by eliminating, reducing and/or controlling risks at a site. Discussion of this change is found in the response to comments for the detailed analysis of alternatives.

2. Language in the regulation at § 300.430(e)(2)(i) has been clarified to indicate that preliminary remediation goals are initially developed based on easily available information, such as ARARs and other reliable information. This reliable information will likely be EPA-developed toxicity information (i.e., reference doses and cancer potency factors). As further information becomes available, then other factors listed in paragraphs (e)(2)(i)(A), (B), and (C) will be considered. In addition, the description of ARARs in § 300.430(e)(2)(i)(A) is revised (see preamble section below on definition of

"Applicable"). Further, the language in § 300.430(e)(2)(i)(A)(1) is revised for clarity. Sections 300.430(e)(2)(i)(A)(2) and (3) of the proposal are being combined in the final rule to indicate that exposure to multiple contaminants and multiple exposure pathways are situations that may result in ARARs being nonprotective. Language in § 300.430(e)(2)(i)(G) is being added to indicate that where environmental ARARs do not exist, environmental evaluations, especially focusing on sensitive ecosystems and critical habitats of species protected under the Endangered Species Act, will provide information for developing remediation goals. These changes are being made to clarify the proposal and do not represent any change in the remedial process.

3. See ARARs preamble sections below for other additions or revisions to § 300.430(e)(2)(i): "Use of maximum contaminant level goals for ground water," "Use of federal water quality criteria (FWQC)," and "Use of alternate concentration limits (ACLs)."

4. Section 300.430(e)(6) has been revised to clarify that a no-action alternative may be appropriate where a removal or remedial action has already occurred at a site.

5. The provision on the development of alternatives that use innovative technologies is being revised to indicate that an innovative technology need only offer the potential to be comparable in performance or implementability to demonstrated technologies to warrant further consideration in the detailed analysis step.

6. Two factors used in the screening of alternatives are being revised. ARAR compliance and reduction of toxicity, mobility or volume through treatment are being added as considerations in determining effectiveness. This revision corrects an inadvertent omission in the proposal. The role of cost in screening alternatives has been revised to indicate that alternatives may be screened on costs in two ways. First, an alternative whose cost is grossly excessive compared to the effectiveness it provides may be eliminated in screening. Second, if two or more alternatives provide similar levels of effectiveness and implementability using a similar method of treatment or engineering control, the more expensive may be eliminated from further consideration.

7. The references to advisories, criteria or guidance in §§ 300.430(e)(8) and (9) have been modified (see preamble section below on TBCs).

Name: Section 300.430(e)(2). Use of risk range.

Proposed rule: Proposed § 300.430(e)(2)(i)(A)(2) states that for known or suspected carcinogens, acceptable exposure levels are generally concentration levels that represent an excess upperbound lifetime cancer risk to an individual of between 10^{-4} and 10^{-7} (53 FR 51426 and 51505).

Response to comments: A few commenters supported the proposed risk range of 10^{-4} to 10^{-7}, though generally with qualifications. One commenter's position on the point of departure makes clear that they view the risk range only as a fallback when 10^{-6} cannot be attained. Another commenter supporting the proposed risk range argued that the risk range should be used only as a guideline, in order to provide lead agencies with sufficient flexibility. Another commenter said that they could support the proposed range, but their comments clearly favor revision to a range of 10^{-4} to 10^{-6} as the really operative part. Several commenters (see below) supported a more stringent risk range or level.

Many commenters favored a less stringent range, i.e., one whose lower risk bound is higher than 10^{-7} and whose upper bound may even exceed 10^{-4}, while some favored a more stringent range or a single, stringent target cleanup level. A few commenters recommended dispensing with the use of a risk range or risk assessment altogether as a basis for cleanup in favor of what they maintained are more stringent levels (background or statutorily specified ARARs). Several commenters pointed out that risk assessment methodology is as important as the range chosen.

The majority in favor of a less stringent range generally supported a risk range of 10^{-4} to 10^{-6}. A number of reasons were given in support of this alternative. The most commonly repeated reason is that the narrower, higher risk range is consistent with risk management decisions made in other EPA regulatory programs and in federal regulatory agencies in general. Commenters argued that allowing a lower risk on the order of 10^{-7} would be "unprecedented" and "indefensible," far less than many commonly accepted risks or the accepted de minimis level. Some also noted that no Superfund action has ever cleaned up to this stringent level. Another commenter stated that recent judicial decisions support the use of a narrower risk range. One commenter suggested a slightly different range of 10^{-5} to 10^{-6} in order to limit the pressure for less protective remedies.

Other reasons for opposing a risk range with a boundary at 10^{-7} are that such a range could lead to fewer cleanups of high-risk sites or less overall risk reduction, which would misallocate scarce resources (the Superfund) and be contrary to the statutory mandate for cost-effectiveness; that it is impossible to detect many chemicals at this low level; that it is not technologically feasible in many cases to achieve this level; that risk assessment already incorporates conservative assumptions; and that the broader, more stringent range complicates analysis of alternatives in the FS. One commenter pointed out that the more stringent level may be suitable for highly toxic chemicals such as pesticides, but otherwise it is not worth the additional cost. Another commenter charged that EPA's choice of the lower bound was improperly intended to bias selection of remedy toward treatment technologies, because it is clearly not necessary for protection of health.

Several commenters argued against the proposed risk range in favor of setting the overall cleanup level for the remedy at no higher than 10^{-6}. They argued that because risk assessment is fraught with uncertainty, remedies should always protect to this level at a minimum, regardless of the levels of individual ARARs. Commenters recognized that it may not be feasible to achieve 10^{-6}, or there may be "extraordinary circumstances" that preclude this level; in such cases one commenter proposed an upper bound of 10^{-4}.

These commenters also had problems with the specific boundaries proposed by EPA. One commenter said that 10^{-4} is too great a risk, and even 10^{-7} may be as well; they found the alternative of 10^{-4} to 10^{-6} to be unacceptable, although they did not say what risk level or approach would be preferable. They disputed the validity of the argument relating risk level and number of sites cleaned up because of the availability of PRPs. One commenter, while preferring a risk range to a single level, suggested that 10^{-5} rather than 10^{-4} might be more protective as the upper bound for one or two chemicals because the conservative assumptions become additive for more than two chemicals. Another commenter argued that an upper bound at 10^{-5} is needed because a state agency would have difficulty supporting or justifying using a higher risk level. A commenter expressed concern that a risk range might preclude more protective remedies that can practicably be achieved at little additional cost. One commenter argued that levels below 10^{-7} should be permissible, and that any limit at the lower end would undermine the state in negotiating with PRPs. A commenter suggested that risk assessment should be a final check on the most protective remedy practicable.

Commenters argued that use of a risk range does not adequately protect health and environment. One proposed that cleanup should always be to background levels as a first choice, because anything less leaves contamination whose cumulative and chronic effects are unknown. Another commenter disagreed with use of a risk range and site-specific risk assessment as a basis for remedy selection, saying that it violates the statute's mandate to use such stringent standards as MCLGs and water quality criteria, which would assure protection of health and environment. A commenter pointed out that there is no statutory authority for use of a risk range when ARARs exist.

Finally, several commenters suggested that the assumptions and methods of risk assessment are as important, or even more important, than the risk range used. They pointed out the need for standardized risk assessment methods and exposure assumptions, and gave suggestions for improved ways of handling uncertainties.

EPA recognizes the merits of many of the comments made on the risk range issue and appreciates the significance of the boundaries of the risk range for determining the extent of protectiveness and the cost of cleanups. Based on the comments received, EPA has decided to revise the boundaries of the acceptable risk range for Superfund cleanups to 10^{-4} to 10^{-6} but to allow for cleanups more stringent than 10^{-6} when warranted by exceptional circumstances. The following discussion explains the basis for using a risk range, the reasons for revising the range, how this revised risk range is to be used when setting remediation goals for a specific medium -- soil, ground water, surface water, or air -- and responds to other comments summarized above on this risk range issue.[8]

The primary goals of Superfund cleanups are to protect human health and the environment and to comply with ARARs. When ARARs are not available, Superfund develops a reasonable maximum exposure scenario that describes the current and potential risk posed by the site in order to determine what is necessary to achieve protection against such risks to human health (see preamble section above on baseline risk assessment for more discussion of reasonable maximum exposure scenario). Based on this scenario, Superfund selects remedies that reduce the threat from carcinogenic contaminants at a site such that the excess risk from any medium to an individual exposed over a lifetime generally falls within a range from 10^{-4} to 10^{-6}. EPA's preference, all things being equal, is to select remedies that are at the more protective end of the risk range. Therefore, when developing its preliminary remediation goals, EPA uses 10^{-6} as a point of departure (see next preamble section on point of departure).

EPA believes that use of a risk range is consistent with the mandates in CERCLA and disagrees with comments that Superfund should not use a risk range. CERCLA does not require the complete elimination of risk or of all known or anticipated adverse effects, i.e., remedies under CERCLA are not required to entirely eliminate potential exposure to carcinogens. CERCLA section 121 does direct, among other requirements, that remedies protect human health and the environment, be permanent to the maximum extent practicable and be cost-effective. Remedies at

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[8] Cleanup levels at a site are determined for a particular medium. Such cleanup levels encompass the acceptable risk levels for contaminants in that medium.

Superfund sites comply with these statutory mandates when the amount of exposure is reduced so that the risk posed by contaminants is very small, i.e., at an acceptable level. EPA's risk range of 10^{-4} to 10^{-6} represents EPA's opinion on what are generally acceptable levels.

In response to comments received, and to be consistent with the accepted de minimis level used by other EPA programs, e.g., the drinking water program, the lower boundary of the risk range has been changed from 10^{-7} to 10^{-6}.[9] This change also reflects the fact, noted by commenters, that current available analytical and detection techniques cannot effectively verify for many contaminants that concentration levels corresponding to risk levels below 10^{-6} have actually been attained after remediation.

In the Superfund program, remediation decisions must be made at hundreds of diverse sites across the country. Therefore, as a practical matter, the remediation goal for a medium typically will be established by means of a two-step approach. First, EPA will use an individual lifetime excess cancer risk of 10^{-6} as a point of departure for establishing remediation goals for the risks from contaminants at specific sites. While the 10^{-6} starting point expresses EPA's preference for setting cleanup levels at the more protective end of the risk range, it is not a presumption that the final Superfund cleanup will attain that risk level.

The second step involves consideration of a variety of site-specific or remedy-specific factors. Such factors will enter into the determination of where within the risk range of 10^{-4} to 10^{-6} the media cleanup standard for a given contaminant will be established.

Preliminary remediation goals for carcinogens are set at a 10^{-6} excess cancer risk as a point of departure, but may be revised to a different risk level within the acceptable risk range based on the consideration of appropriate factors including, but not limited to: exposure factors, uncertainty factors, and technical factors. Included under exposure factors are: the cumulative effect of multiple contaminants, the potential for human exposure from other pathways at the site, population sensitivities, potential impacts on environmental receptors, and cross-media impacts of alternatives. Factors related to uncertainty may include: the reliability of alternatives, the weight of scientific evidence concerning exposures and individual and cumulative health effects, and the reliability of exposure data. Technical factors may include: detection/quantification limits for contaminants, technical limitations to remediation, the ability to monitor and control movement of contaminants, and background levels of contaminants. The final selection of the appropriate risk level is made when the remedy is selected based on the balancing of criteria (see preamble discussion below on remedy selection).

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[9] Office of Drinking Water, National Primary and Secondary Drinking Water Regulations; Proposed Rule, 54 FR 22064 (May 22, 1989). In general, other federal agencies do not reduce individual lifetime risk levels below 10^{-6}. "Cancer risk management," Environment, Science and Technology, Vol. 21, No. 5 (1987).

Some commenters recommended establishing a single point, e.g., 10^{-6}, as the basis for cleanup at all sites. EPA does not agree with this recommendation because EPA believes that other risk levels may be protective when the 10^{-6} risk level will not be attained at a site due to the factors described above. Moreover, establishing 10^{-6} as the single cleanup level, i.e., the only level considered protective, would be incongruous with CERCLA's requirement to comply with ARARs. Many ARARs, which Congress specifically intended be used as cleanup standards at Superfund sites, are set at risk levels less stringent than 10^{-6}.

Ground water that is not currently a drinking water source but is potentially a drinking water source in the future would be protected to levels appropriate to its use as a drinking water source. Ground water that is not an actual or potential source of drinking water may not require remediation to a 10^{-4} to 10^{-6} level (except when necessary to address environmental concerns or allow for other beneficial uses; see preamble discussions below on EPA's ground-water policy and on use of MCLGs for ground-water cleanups).

EPA's approach on setting remediation goals for soils is based on risk levels and is intended to protect currently exposed individuals as well as those who potentially may be exposed in the future. A reasonable maximum exposure scenario (described in the preamble section above on "baseline risk assessment") is developed to estimate future potential uses of the site in order to provide a basis for the development of protective exposure levels. For example, soil that is not currently in residential use but may potentially have future residential uses would be protected to levels appropriate to residential uses. However, contaminated soil at an industrial site might be cleaned up to a less stringent standard, but still within the 10^{-4} to 10^{-6} risk range, than soil at a residential site, as long as there is reasonable certainty that the site would remain for industrial use only (institutional controls may be necessary to ensure that the site is not used for residential purposes). In the unusual circumstances where the baseline risk assessment indicates that there is little or no chance of any direct human exposure, for example, contaminated riverbeds in certain circumstances, remediation of the sediments to human health-based levels may not be necessary (although cleanup to address environmental concerns may be required).

"Potential" is a term used in a variety of contexts in § 300.430. When "potential" is used to describe risk, exposure, exposure pathways or threats, it means a reasonable chance of occurrence within the context of the reasonable maximum exposure scenario developed for that particular site (see preamble discussion above on "baseline risk assessment").

At some sites, it is not certain that a risk level of 10^{-6} will actually be attained, even when treatment technology designed to achieve 10^{-6} is selected, due to the presence of certain site-specific exposure factors. Such factors may indicate the need to establish a risk goal that is more protective than the overall goal of 10^{-6}. These site-specific exposure factors include but are not limited to: the cumulative effect of multiple contaminants; the potential for human exposure from other pathways at the site; population sensitivities; potential impacts on environmental receptors; and cross-media impacts. In addition, even if not specified as a goal, a cleanup more stringent than 10^{-6} may be achieved in some cases due to the nature of the treatment technology used. Remedial technologies exist that, in the process of meeting remediation goals within the range of 10^{-4} to 10^{-6} risk, can achieve risk reduction for particular contaminants below 10^{-6}.

In summary, EPA's approach allows a pragmatic and flexible evaluation of potential remedies at a site while still protecting human health and the environment. This approach emphasizes the use of 10^{-6} as the point of departure while allowing site- or remedy-specific factors, including potential future uses, to enter into the evaluation of what is appropriate at a given site. As risks increase above 10^{-6}, they become less desirable, and the risk to individuals generally should not exceed 10^{-4}.

In response to other comments received on the risk range issues, EPA does not agree that cleanup should always be to background levels. In some cases, background levels are not necessarily protective of human health, such as in urban or industrial areas; in other cases, cleaning up to background levels may not be necessary to achieve protection of human health because the background level for a particular contaminant may be close to zero, as in pristine areas.

Other commenters asserted that EPA must use statutorily-specified requirements, such as MCLGs or water quality criteria (WQC), instead of a risk range when setting cleanup levels. In response, EPA believes that a risk range is necessary to assist in determining protectiveness in the absence of potential ARARs. Further, in cases of mixtures of chemicals where attaining chemical-specific ARARs for each contaminant may still result in a cumulative risk in excess of 10^{-4} due to additivity of the risk of the contaminants, use of a risk range would be necessary to set a protective remediation level for the overall medium. Finally, some commenters stressed the importance of assumptions and methods used in conducting risk assessments to the establishment of cleanup goals. EPA agrees. EPA discusses assumptions and methods to be used when conducting risk assessments in greater detail in the preamble sections above on remedial investigation and baseline risk assessment.

Final rule: EPA has revised § 300.430(e)(2)(i)(A)(2) to state that: "For known or suspected carcinogens, acceptable exposure levels are generally concentration levels that represent an excess upper bound lifetime cancer risk to an individual of between 10^{-4} to 10^{-6} using information on the relationship between dose and response."

Name: Section 300.430(e)(2). Use of point of departure.

Proposed rule: Section 300.430(e)(2)(i)(A)(2) stated that the 10^{-6} risk level shall be used as the point of departure for determining remediation goals for alternatives when ARARs are not available or are not sufficiently protective.

Response to comments: Essentially none of the commenters supported the point of departure exactly as proposed, that is, where ARARs are lacking or are not sufficiently protective determination of cleanup levels would start at 10^{-6} and move within the risk range depending on certain enumerated factors.

Several commenters favored use of 10^{-6} as the cleanup level. Some of these commenters did not actually endorse the concept of a point of departure in that they thought the overall risk of a remedy should not exceed 10^{-6} in any case. Others essentially supported a sticky point from which departures in the direction of increased risk would only be justified on grounds such as infeasibility.

A number of commenters preferred the use of the full risk range rather than a single value for the cleanup level. In certain cases it was not clear whether commenters understood EPA's intention in having a point of departure. One commenter said that a point of departure does not help in developing cleanup goals. Other commenters argued that a point of departure undermines the risk range by establishing a single value for all sites, whereas use of a risk range accounts for variation among sites and for uncertainties in risk assessment. Another commenter supported use of the entire range rather than focussing on 10^{-6} in order to foster cost-effectiveness in the program, while several others similarly stated that a risk range, rather than a target level, recognizes such relevant factors as toxicity, exposure potential, and cost-benefit tradeoffs.

Several commenters proposed use of a different point of departure, and even one which could vary depending on the site circumstances. If a point of departure is chosen, one commenter suggested that 10^{-5} is the appropriate value, being within the suggested risk range of 10^{-4} to 10^{-6}. Another commenter, on the other hand, said the point of departure should be 10^{-4}: this level is considered acceptably protective; it is already based on very conservative assumptions, so that the true risk is lower; and anything lower would be a bias toward treatment.

In opposing the proposed point of departure, one commenter suggested that there should be different targets for various population sizes, and that a higher value such as 10^{-4} is adequate for smaller populations. Others echoed this comment, saying that population size should be a factor for moving in the risk range, and that for small populations 10^{-4} suffices. One commenter pointed out that other federal agencies have considered 10^{-4} as de minimis for small populations. A commenter stated that EPA has in the past considered 10^{-5} as insignificant when aggregate population risk is very low. The commenter did not suggest a value but said that EPA should re-examine the issue of not considering population size in setting cleanup levels. Finally, one commenter suggested that risk levels could be set depending on the conservatism of the assumptions used and other relevant factors such as the form in which the chemical is present in the environment.

EPA believes it is necessary to explain how it intends the point of departure to be used. Where the aggregate risk of contaminants based on existing ARARs exceeds 10^{-4} or where remediation goals are not determined by ARARs, EPA uses 10^{-6} as a point of departure for establishing preliminary remediation goals. This means that a cumulative risk level of 10^{-6} is used as the starting point (or initial "protectiveness" goal) for determining the most appropriate risk level that alternatives should be designed to attain. The use of 10^{-6} expresses EPA's preference for remedial actions that result in risks at the more protective end of the risk range, but this does not reflect a presumption that the final remedial action should attain such a risk level. Factors related to exposure, uncertainty and technical limitations may justify modification of initial cleanup levels that are based on the 10^{-6} risk level. The ultimate decision on what level of protection will be appropriate depends on the selected remedy, which is based on the criteria described in § 300.430(e)(9)(iii).

EPA believes, however, that it is both useful and necessary to have a starting point in those cases where the remediation goal is not determined by ARARs. Although adjustments may be necessary in determining the actual remediation goal for a site, it is important to have an initial value to which adjustments can be made, particularly since the risk range covers two orders of magnitude. By using 10^{-6} as the point of departure, EPA intends that there be a preference for setting remediation goals at the more protective end of the range, other things being equal. Contrary to assertions of some commenters, EPA does not believe that this preference will be so strong as to preclude appropriate site-specific factors. Also, EPA does not agree that cost should be considered when setting the preliminary remediation goal because reliable cost information is not available at this step of the process. Cost is ultimately one of the criteria used in selecting a remedy.

EPA would like to address those commenters who suggest that the point of departure should depend on population size. At this time EPA believes that the point of departure should be consistent across all sites. The point of departure represents a level from which analysis should begin, regardless of the circumstances. Preliminary and final remediation goals, i.e., target risk levels, however, may vary from the point of departure depending upon site-specific circumstances (see discussion above on risk range). The ultimate role of population size in determining response priorities or remedies is currently under review by the Risk Management Council.

Final rule: EPA is revising proposed § 300.430(e)(2)(i)(A)(2) on the point of departure as follows: "The 10^{-6} risk level shall be used as the point of departure for determining remediation goals for alternatives when ARARs are not available or are not sufficiently protective because of the presence of multiple contaminants at a site or multiple pathways of exposure;..."

Name: Section 300.430(e)(9). Detailed analysis of alternatives.

Proposed rule: The purpose of the detailed analysis is to objectively assess the alternatives with respect to nine evaluation criteria that encompass statutory requirements and include other gauges of the overall feasibility and acceptability of remedial alternatives (53 FR 51428). This analysis is comprised of an individual assessment of the alternatives against each criterion and a comparative analysis designed to determine the relative performance of the alternatives and identify major trade-offs (i.e., relative advantages and disadvantages) among them. The decision-maker uses information assembled and evaluated during the detailed analysis in selecting a remedial action.

Response to comments: The preamble discussion of the detailed analysis section of the RI/FS process in the proposal categorized the nine criteria into three groups: threshold, primary balancing and modifying criteria (53 FR 51428). Although in general, commenters supported this tiered system, many were confused about the significance of the categories in the detailed analysis and remedy selection stages. After a careful study of the comments, EPA has concluded that the process EPA proposed would be expressed more clearly if the nine criteria were not divided into three categories during the detailed analysis phase, when all nine criteria need to be objectively assessed, but when the balancing decision is made. EPA believes that the characterization of the criteria into the three categories is important, and should be used during remedy selection, as discussed in that section of today's preamble.

Some commenters asked EPA to clarify the purpose and content of the detailed analysis. The following is a general description of the detailed analysis. The detailed analysis of alternatives consists of the analysis and presentation of the relevant information needed to allow decision-makers to select a site remedy. It is not the decision-making process itself. During the detailed analysis, each alternative is assessed against each of the nine criteria. The analysis lays out the performance of each alternative in terms of compliance with ARARs, long-term effectiveness and permanence, reduction of toxicity, mobility or volume through treatment, short-term effectiveness, implementability, and cost. The assessment of overall protection draws on the assessments conducted under other evaluation criteria, especially long-term effectiveness and permanence, short-term effectiveness and compliance with ARARS. State and community acceptance also are assessed, although definitive assessments of these factors cannot be completed until the public comment period on the draft RI/FS and proposed plan is completed. Further guidance on this process is available in the "EPA Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA," OSWER Directive No. 9355.3-01, October 1988 (Interim Final). This guidance will be updated following promulgation of the NCP.

After making the individual criterion assessments for each alternative, the alternatives are compared to each another. This comparative analysis identifies the key tradeoffs (relative advantages and disadvantages) among the alternatives with respect to the nine criteria. The purpose of this comparative analysis is to provide decision-makers with sufficient information to balance the trade-offs associated with the alternatives, select an appropriate remedy for the site and demonstrate satisfaction of the CERCLA remedy selection requirements.

In general, commenters supported the use of the nine criteria in performing the detailed analysis. The supporters wrote that the criteria provide the flexibility needed to analyze diverse site conditions, by allowing the consideration of a wide range of relevant factors.

Some commenters wrote that nine criteria are too many to address in the detailed analysis. These commenters argued that considering so many criteria makes the evaluation too complicated. While supporting the nine criteria, one commenter suggested adding as an additional criterion, the extent to which the alternative utilizes permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. In addition, several commenters addressed the relation of the nine criteria used in alternatives evaluation and remedy selection to the statutory mandates for remedy selection described in section 121 of CERCLA. These commenters remarked that the use of the nine criteria was a significant departure from the remedy selection criteria in the 1985 NCP, which focused on protectiveness and cost. They also believed that increasing the number of criteria to be considered during remedy selection reduces flexibility and complicates an already complicated process. They suggested that the criteria should be based directly on the statutory language. Specifically, these commenters proposed the following four criteria: protection of human health and the environment; compliance/waiver of ARARs; preference for permanent solutions and treatment as a principal element; and cost-effectiveness.

Although agreeing with EPA's establishment of protection of human health and the environment and compliance with ARARs as the first two evaluation criteria, one commenter suggested significant modifications to the other criteria. This commenter suggested merging the five evaluation criteria of long-term effectiveness and permanence, reduction of toxicity, mobility or volume through treatment, short-term effectiveness, implementability, and cost, into three broad criteria: effectiveness, implementability and cost. This commenter noted that state and community acceptance, although relevant considerations in remedy selection, add nothing to the feasibility study process. The commenter believes this system would provide the most appropriate starting point for creating a structured method for selecting a site remedy.

EPA developed the nine evaluation criteria to give effect to the numerous statutory mandates of section 121 and in particular, the remedial action assessment factors of section 121(b)(1)(A)-(G). EPA does not believe analysis of alternatives under the four criteria approach suggested by the commenter would provide an adequate analytical framework. EPA also is not adding as a criterion the statutory mandate to utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. The analysis performed pursuant to the nine criteria concludes with selection of a remedy that meets the statutory mandates. This analysis requires consideration of a number of factors before making these conclusions. In particular, the mandate for cost-effective remedies clearly requires consideration of both costs and the effectiveness of alternatives. Similarly, EPA believes that a range of factors, including long-term effectiveness and permanence, reduction of toxicity, mobility, or volume through treatment, and short-term effectiveness, must be considered to provide the basis for concluding that a particular alternative represents the practicable extent to which permanent solutions and treatment can be used at a given site. However, EPA has included two specific statutory requirements in the criteria (protection of human health and the environment and compliance with ARARs) in light of the paramount importance of these mandates. EPA notes that it does have an expectation that alternatives that will treat principal threats at sites will be considered, consistent with the statutory preference for treatment as a principal element.

The proposed rule stated that the detailed analysis is to be conducted on the limited number of alternatives that represent viable hazardous waste management approaches (53 FR 51506). One commenter recommended changing the wording to conduct a detailed analysis on those alternatives representing "viable approaches to remedial action," rather than "viable hazardous waste management approaches." EPA agrees with this recommendation and has substituted the commenter's wording for the phrase in the final rule. As a further clarification, today's rule consistently uses the term "remedial alternative" in all pertinent places.

A discussion of each of the nine criteria follows.

1. Protection of human health and the environment. This evaluation criterion assesses whether each alternative provides adequate protection of human health and the environment. The overall assessment of protection draws on the assessments conducted under other evaluation criteria, especially long-term effectiveness and permanence, short-term effectiveness, and compliance with ARARs. Only those alternatives determined to be protective in the detailed analysis proceed to the selection of remedy step.

One commenter noted that effectiveness, implementability, extent of reduction in toxicity, mobility, or volume, and compliance with ARARs criteria should be considered before evaluating the protectiveness of a remedial alternative. EPA agrees that the protectiveness determination in the detailed analysis draws upon the assessments conducted under other evaluation criteria, especially long-term effectiveness and permanence, short-term effectiveness, and compliance with ARARs. However, EPA has maintained protection of human health and the environment as the first criterion due to the clear statutory mandate to select remedies that are protective of human health and the environment.

One commenter stressed that the impact of the remedial action on natural resources must be assessed under this criterion. The commenter noted that the use of ground-water pump and treat systems as part of a remedial action may deplete valuable water resources, particularly in the western states. EPA agrees that the impact of the remedial action must be assessed and calls for this analysis under the short-term effectiveness criterion. As noted above, the evaluations of short-term effectiveness and other criteria are used in assessing the protectiveness of each alternative.

2. Compliance with ARARs. This evaluation criterion is used to determine whether each alternative will meet all of its federal and state ARARs (as defined in CERCLA section 121). The detailed analysis should summarize which requirements are applicable or relevant and appropriate to an alternative and describe how the alternative meets these requirements. When an ARAR is not met, the detailed analysis should discuss whether one of the six waivers allowed under CERCLA may be appropriate (see also preamble section below on ARARs).

One commenter noted that the responsibility for evaluating the applicability of ARARs waivers to a proposed remedial action lies with the lead agency and not with the potentially responsible party (PRP). This commenter also recommended that the lead agency evaluate potential grounds for ARARs waivers as early as possible in the feasibility study, due to the important role ARARs play in the ultimate remedy selection decision. EPA supports early evaluation of ARARs by the lead agency or the PRP, as appropriate, depending on site-specific enforcement agreements. Either the PRP or a state may perform the ARAR analysis and recommend the applicability of ARAR waivers, but ultimately EPA determines compliance with ARARs (and the applicability of ARARs waivers) when it selects the remedial action, as described in the proposed plan and finalized in the record of decision (ROD).

3. Long-term effectiveness and permanence. The analysis under this criterion focuses on any residual risk remaining at the site after the completion of the remedial action. This analysis includes consideration of the degree of threat posed by the hazardous substances remaining at the site and the adequacy and reliability of any controls (e.g., engineering or institutional controls) used to manage the hazardous substances remaining at the site. The criterion is founded on CERCLA's mandates to select remedies that are protective of human health and the environment and that utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable and that maintain protection over time.

Seeking clarification of EPA's interpretation of "permanence," one commenter recommended that EPA define a permanent remedy as a remedy for a particular site that results in protection of human health and the environment without the need for significant levels of long-term operation and maintenance. Another suggested that a permanent solution is simply a remedy that is not an interim solution, i.e., it is a final solution. EPA evaluates permanence to the maximum extent practicable as the degree of long-term effectiveness and permanence afforded by a remedy. This is judged along a continuum, with remedies offering greater or lesser degrees of long-term effectiveness and permanence.

As a general observation, several commenters noted that many of the criteria (e.g., long-term effectiveness, short-term effectiveness, and reduction of toxicity, mobility or volume through treatment) overlap. EPA acknowledges that these factors are related. They derive from the mandates of section 121 and are designed to elicit analysis on distinct, but related factors to perform a comprehensive analysis of each alternative. Today's rule lists factors to be considered in performing the detailed analysis under each of the criteria. For further guidance, see the "Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA," OSWER Directive No. 9355.3-01, October 1988 (Interim Final).

Long-term effectiveness includes a consideration of the residual risk remaining at a site after the remedial action is complete. This assessment of risk is conducted assuming conservative but realistic exposures. This consideration will assess how much of that risk is associated with treatment residuals and how much is associated with untreated waste. The potential for this risk may be measured by numerical standards such as cancer risk levels or the volume or concentration of contaminants in waste, media, or treatment residuals remaining on site.

4. Reduction of toxicity, mobility or volume through treatment. This evaluation criterion addresses the statutory preference for selecting remedial actions that employ treatment technologies that permanently and significantly reduce the toxicity, mobility or volume of the hazardous substances as a principal element. Specifically, this analysis examines the magnitude, significance and irreversibility of such reductions achieved by alternatives employing treatment.

One commenter pointed out that the preamble to the proposed rule lacked precision in stating that CERCLA section 121 mandates a preference for remedies that permanently reduce the volume, toxicity, or mobility of the hazardous substances. Rather, this commenter wrote, section 121 establishes a preference for remedies in which treatment permanently and significantly reduces the volume, toxicity or mobility of the hazardous substances. The commenter noted the omission of the word "treatment" could be important because the ambiguous statement in the proposal would allow the conclusion that containment qualifies as a preferred remedy. In fact, some commenters suggested the rule contain language stating that physical control, or containment on site, would qualify as actions achieving a reduction of mobility for purposes of this criterion.

EPA must stress that the reductions analyzed pursuant to the reduction of toxicity, mobility or volume criterion must be attained through treatment. This criterion is designed to evaluate alternatives in light of CERCLA's preference for remedial actions in which treatment which permanently and significantly reduces the volume, toxicity or mobility of the hazardous substances is a principal element. This criterion has been amended in today's rule to specify analysis of the extent that toxicity, mobility or volume is reduced through treatment.

On a related point, another commenter noted that the statute establishes a preference for reduction of toxicity, mobility or (rather than "and") volume through treatment. EPA agrees with this comment and today's preamble and rule consistently refer to the reduction of toxicity, mobility or volume through treatment.

Another commenter expressed concern that the phrase "permanently and significantly reduces the volume, toxicity or mobility of the hazardous substances" will be interpreted as a presumption in favor of incineration. This commenter believes such a presumption would dramatically increase remediation costs without providing a corresponding increase in protectiveness. Some commenters argued that the effectiveness of different treatment technologies should not be judged solely on the destructive efficiency of a particular technique, such as incineration, because treatment technologies that do not destroy hazardous constituents but rather immobilize them chemically also are capable of protecting human health and the environment and satisfying the statutory preference.

In response, the purpose of treatment in the Superfund program is to substantially reduce the toxicity, mobility, or volume of hazardous substances in order to decrease the inherent hazards posed by a site. Consistent with the statutory preference set out in CERCLA section 121(b)(1), EPA expects to treat the principal threats (e.g., contaminants of concern) posed by a site, wherever practicable (see § 300.430(a)(1)(iii)(A)). However, EPA agrees with the commenters that more than one treatment technology is capable of accomplishing these goals. In order to clarify this point, EPA is establishing, as a guideline, that treatment as part of CERCLA remedies should generally achieve reductions of 90 to 99 percent in the concentration or mobility of individual contaminants of concern, although there will be situations where reductions outside the 90 to 99 percent range that achieve health-based or other site-specific remediation goals (corresponding to greater or lesser concentration reductions) will be appropriate.

All treatment should involve well-designed and well-operated systems. In order to achieve 90 percent or greater reductions, the systems should be designed to achieve reductions beyond the target level under optimal conditions. If treatment results in the transfer of hazardous constituents from one medium to another (e.g., stripping of VOCs from sludges to air), treatment of the newly affected medium will often be required.

The reductions suggested by this guideline for effective treatment may be achieved by the application of a single technology or a combination of technologies (i.e., treatment train). In addition, EPA believes this 90 to 99 percent range allows the use of an array of technologies, including innovative technologies. As noted above, EPA agrees that a wide variety of treatment technologies are capable of achieving these reductions. For example, effective treatment may potentially include bioremediation, solidification, a variety of thermal destruction technologies, as well as many others. EPA supports the development and use of a diverse array of treatment technologies to address hazardous substances at Superfund sites. Examples of efforts to support such development and use include the Superfund Innovative Technology Evaluation program and the increased encouragement of treatability testing of innovative technologies during the RI/FS to improve promotion and selection of such technologies. To provide further emphasis on the use of innovative technologies, today's rule incorporates an expectation that examination of such technologies shall be carried through to the detailed analysis if those technologies have the potential and viability to perform better than or equal to proven technologies in terms of performance or implementability, short-term effectiveness or cost (§ 300.430(a)(1)(iii)(E)).

This guideline for effective treatment is based on an evaluation by the Superfund program of the effectiveness of treatment technologies on hazardous constituents in sludges, soil, and debris, the most common waste addressed by Superfund source control remedial actions ("Summary of Treatment Technology Effectiveness for Contaminated Soil," EPA Final Report (March 1989). This guideline is also consistent with guidance that establishes alternate treatment levels to be achieved when complying with the RCRA land disposal restrictions for soil and debris through a treatability variance ("Obtaining a Soil and Debris Treatability Variance for Remedial Actions," Superfund LDR Guide #6A, OSWER Directive 9347.3-06FS). Both documents are available in the docket in support of this final rule.

One commenter recommended that recycling should be considered in assessing the extent that each alternative reduces the toxicity, mobility or volume of the hazardous substances. Although the rule as proposed would have allowed recycling activities to occur as part of the remedial action, § 300.430(e)(9)(iii)(D) of today's rule is changed to specifically consider the reduction of toxicity, mobility or volume of the hazardous substances through recycling.

5. Short-term effectiveness. This evaluation criterion addresses the effects of the alternative during the construction and implementation phase until remedial response objectives are met. Under this criterion alternatives are evaluated with respect to their effects on human health and the environment during implementation of the remedial action.

One commenter requested additional guidance on the evaluation of short-term effectiveness. Today's rule lists the factors to consider under this criterion. The assessment of short-term effectiveness includes an evaluation of how alternatives will protect the community during remedial actions. This aspect of short-term effectiveness addresses any risk that results from implementation of the proposed remedial action, such as dust from excavation, transportation of hazardous materials, or air quality impacts from a stripping tower operation that may affect human health. This assessment will consider who may be exposed during the remedial action, what risks those populations may face, how those risks can be mitigated, and what risks cannot be readily controlled. Workers are included in the population that may be affected by short-term exposures.

This criterion also addresses potential adverse impacts on the environment that may result from the construction and implementation of an alternative and evaluates the reliability of the available mitigation measures in preventing or reducing potential impacts on either of these potential receptors. More detailed guidance on evaluating the short-term impacts of a remedial alternative is included in the "EPA Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA" (OSWER Directive 9355.3-01, October 1988). This guidance lists relevant factors to analyze as part of this criterion and the bases for evaluation during the detailed analysis.

This commenter also expressed concern that EPA's definition of short-term effectiveness does not sufficiently highlight the use of institutional controls during remedy implementation. According to this commenter, because these techniques can substantially reduce risk, EPA should require consideration of these controls when assessing the short-term effectiveness of an alternative. Another commenter expanded on this concept, stating that both institutional controls and site stabilization can be used to mitigate the risks posed by the remedial action. This commenter argued that use of institutional controls and site stabilization activities would allow the use of innovative technologies, such as bioremediation, that could be effective in the long-term. EPA agrees that short-term effects often can be mitigated through the use of institutional controls along with other active measures that may include interim remedies (implemented as operable units) or removal actions. Program management principles and expectations placed in today's rule reflect these concepts.

One commenter noted that many of the same considerations that apply to the evaluation of long-term effectiveness also apply to evaluating the short-term effectiveness of certain remedial techniques. In analyzing short- and long-term effectiveness, EPA may study impacts or risks posed to many of the same receptors. However, the focus of the analyses under the two criteria differ. The analysis under the long-term effectiveness and permanence criterion addresses the risk remaining after response objectives have been met. The primary focus of this evaluation is the extent and effectiveness of the controls that may be required to manage the risk posed by treatment residuals and/or untreated wastes. The analysis under the short-term effectiveness criterion focuses on the effects on human health and the environment during implementation of the remedial action.

6. Implementability. The implementability criterion addresses the technical and administrative feasibility of implementing an alternative and the availability of various services and materials required during its implementation.

Some commenters linked implementability with effectiveness. These commenters argued that the two criteria must be analyzed together because an alternative that is not implementable also could not be effective. One commenter asserted that implementability is site-specific and therefore should include the variables of each site's topography, location, and available space, capacity and technologies.

Although EPA agrees that implementability and effectiveness are related, EPA has maintained them as separate analytical criteria. This allows distinct analysis of the various subfactors of each criterion (such as the magnitude of residual risk remaining at the conclusion of the remedial action for long-term effectiveness and permanence, and the technical feasibility associated with the remedial action for implementability), which generally do not relate to both. EPA agrees that implementability is determined on a site-specific basis. The factors listed by this commenter would be addressed under the technical feasibility component of the implementability criterion. Today's rule lists the factors to be considered under the criteria and the RI/FS guidance provides an additional discussion.

7. Cost. Many comments reflected some confusion over the role of cost as an analytical criterion under the detailed analysis and the required statutory finding that the remedy selected is cost-effective. One commenter focused on the need to distinguish the cost-effectiveness finding from the cost evaluation criterion. EPA agrees that this distinction is an important one. Although cost is used as a crude screen in the development and screening of alternatives, cost is primarily addressed in the detailed analysis and remedy selection phases of the remedial process. The detailed analysis evaluates and compares the cost of the respective alternatives, but draws no conclusion as to the cost-effectiveness of the alternatives. Cost-effectiveness is determined in the remedy selection phase, considering the long-term effectiveness and permanence afforded by the alternative, the extent to which the alternative reduces the toxicity, mobility, or volume of the hazardous substances through treatment, the short-term effectiveness of the alternative, and the alternative's cost (see preamble section below on detailed discussion of the role of cost in decision-making).

Several commenters addressed cost as an evaluation criterion. Some noted the importance of an adequate cost evaluation in the detailed analysis phase. EPA agrees that the evaluation of costs associated with an alternative must be based on as complete and accurate cost data as possible. Several commenters stated that the discount rate used to determine the net present value creates a bias against protective remedies. Some argued that use of the 10 percent discount rate established by OMB Circular A-94 is inappropriately high. They believe use of this discount rate artificially reduces estimates of the cost of operation and maintenance (O&M) and encourages the selection of containment-based, low capital, high O&M cost remedies, while discouraging high capital, low O&M cost remedies. They commented that the discount rate of 10 percent is unrealistic because it does not take into account long-term market conditions and the likelihood that the beneficial value of a clean site will increase as populations increase and natural resources become more scarce. The discount rate may also be outdated because inflation rates have changed since the rate was developed. The commenters stated that five percent is a more realistic discount rate. EPA recognizes the importance of using an appropriate discount rate when deriving estimates of project costs. EPA does not intend to create a bias against high capital, low cost O&M remedies. EPA will follow OMB Circular A-94 and notes that OMB is currently reviewing its provisions. If and when Circular A-94 is revised, EPA will address this matter in program guidance to ensure consistency with Circular A-94.

EPA received the suggestion that the cost criterion should include the assessment of savings due to recycling of salvageable or recyclable material. EPA has not changed the rule to specifically consider revenue realized due to recycling. However, EPA believes that to the extent response costs are directly offset by the receipt of revenue from recycling, such funds should be included when calculating the costs of the response action.

One commenter argued that costs of future remedial actions should be included in the cost estimate, when there is a reasonable expectation that a major component of a remedy may require replacement. EPA agrees and believes that such factors may be taken into account under today's rule. Analysis under the "long-term effectiveness and permanence" criterion should be used to determine which alternatives may result in future costs. A detailed statistical analysis is not required to identify probable future costs. Rather, qualitative engineering judgment should be used to assess whether replacement costs should be considered. EPA specifically has provided in the RI/FS guidance that such costs are to be addressed, and if appropriate, included in the cost estimate, when it may be reasonably assumed that a major component of the alternative will fail and require replacement to prevent significant exposure to contaminants. EPA notes that when developing cost information, both direct and indirect capital and operation and maintenance costs should be developed.

One commenter recommended considering as part of the analysis under this criterion, costs related to losses of business activities, residential development, and local, state, and federal tax revenues that may result from restricting future land use and ground water use that may be necessary with remedial actions that leave hazardous substances on site. The commenter also said that EPA should also take into account the reductions in the values of the neighboring properties that may occur when an inactive waste site is not restored to unrestricted use. In response, EPA does not believe it is appropriate under CERCLA to include these costs within this evaluation criterion. Section 111 of CERCLA governs the use of the Fund and according to that section, these costs are not included as costs that may be incurred by the Fund. In addition, section 107 provides the right to recover response costs, natural resources damages and costs of certain health assessments or health effects studies. The costs listed by the commenter also are not included specifically within the costs recoverable under section 107. Further, such indirect effects such as the reduction in property values are the result of the hazardous substance activity, not the response action.

One commenter asked EPA to acknowledge that federal procurement requirements apply to EPA contractors conducting Superfund remedial actions. EPA agrees with the commenter that EPA contractors must comply with federal procurement requirements and that this can reduce the cost of Fund-financed remedial actions (e.g., contract award to responsive, responsible low bidder). However, EPA does not believe it necessary or appropriate to acknowledge this in the rule. Similarly, EPA received comments that it should employ cost-cutting measures when implementing remedial actions. EPA agrees and does so whenever possible.

EPA received the comment that the detailed analysis does not afford sufficient weight to cost because, among the five criteria labeled as balancing criteria in the proposal, four address effectiveness and implementability and only one addresses cost. EPA stresses that the number of related criteria in the detailed analysis does not relate to the importance of each criterion. All nine criteria are important to address the requirements of CERCLA.

8. State acceptance. This criterion reflects the statutory requirement to provide for substantial and meaningful state involvement. State comments may be addressed during the FS, as appropriate, although formal state comments generally are not received until after the state has reviewed the draft RI/FS and the draft proposed plan prior to the public comment period.

EPA received several comments stressing the importance of this criterion. EPA agrees this consideration is important and has developed today's rule consistent with CERCLA's emphasis on state involvement in the remedial process (see also preamble section below on Subpart F).

9. Community acceptance. This criterion refers to the community's comments on the remedial alternatives under consideration. For this evaluation, community is broadly defined to include all interested parties, including PRPs. These comments are taken into account throughout the RI/FS process, although formal community comments are made during the public comment period for the proposed plan and the RI/FS.

EPA received one comment suggesting that this criterion only consider the acceptance of a party if that party resides in a community near the site. This commenter argued that comments from parties affected only by interference of normal commerce or residing in areas unaffected by the potential health threat should not be afforded the same weight as those parties residing in the nearby community. As a matter of policy, EPA places the highest priority on comments received from the community to which the site potentially or actually poses a human health or environmental risk. However, today's rule establishes no formal priority for evaluating community comments. Instead, community concerns will be assessed on a site-specific basis, allowing flexibility to meet the demands of varying site conditions and diverse community needs.

Final rule: 1. Today's regulation revises proposed § 300.430(e)(9) based on comments received on the detailed analysis of alternatives using the nine criteria, the remedy selection, and the hierarchy of criteria used in the analysis. The revisions made in response to comments primarily attempt to clarify the process. The revisions reflect the fact that the detailed analysis should be an objective assessment of the alternatives with respect to the nine criteria and as a consequence, the threshold, balancing, and modifying labels have been removed from the discussion of the nine criteria during the detailed analysis and placed in the selection of remedy section, where the criteria are actually used as threshold, balancing, and modifying criteria.

2. The final rule requires specification of which reduction -- toxicity, mobility or volume -- will be achieved by an alternative. Section 300.430(e)(9)(iii)(D)(1) is revised to indicate that recycling is an acceptable means of accomplishing reduction.

Name: **Section 300.430(f). Remedy selection.**

Existing rule: The 1985 NCP calls for the selection of remedies that are cost-effective and that effectively mitigate and minimize threats to public health and welfare and the environment. 40 CFR 300.68(i)(1). In selecting the appropriate extent of remedy, the lead agency considers cost, technology, reliability, administrative and other concerns, and their relevant effects on public health and welfare and the environment. Federal ARARs are used as the basis for determining cleanup levels.

CERCLA, as amended in 1986, elevated the use of ARARs, including state ARARs, as cleanup standards to a statutory requirement and provided other requirements for remedy selection. Congress retained the requirement for protective and cost-effective remedies and prescribed remedies that utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable.

Proposed rule: The preamble to the proposed rule explained that selection of a remedial action is a two step process (53 FR 51429). First, the lead agency, in conjunction with the support agency, reviews the results of the RI/FS to identify a preferred alternative. The lead agency presents this preferred alternative, along with the supporting information and analysis, to the public in a proposed plan for review and comment. Second, the lead agency reviews the public comments, consults with the support agency to evaluate whether the preferred plan still is the most appropriate remedial action for the site or site problem, and makes the final remedy selection decision (see also § 300.515(e) for description of lead and support agency roles during the selection of remedy process).

The identification of the preferred alternative and the final remedy selection decision are based on an evaluation of the major trade-offs among the alternatives in terms of the nine evaluation criteria. Remedial alternatives must be protective of human health and the environment and comply with ARARs (or justify a waiver) in order to be eligible for selection. These are the two threshold criteria from among the nine criteria.

The lead agency balances the trade-offs, identified in the detailed analysis, among alternatives with respect to long-term effectiveness and permanence, reduction of toxicity, mobility or volume through treatment, short-term effectiveness, implementability, and cost. This initial balancing determines preliminary conclusions as to the maximum extent to which permanent solutions and treatment can be practicably utilized in a cost-effective manner. The preamble to the proposed rule referred to the criteria used for balancing the trade-offs as primary balancing criteria.

The alternative that is protective of human health and the environment, ARAR-compliant and affords the best combination of attributes is identified as the preferred alternative in the proposed plan.

State and community acceptance are factored into a final balancing which determines the remedy and the extent of permanent solutions and treatment practicable for the site. State concerns will be factored into the proposed plan to the extent they are known. However, formal state comments may not be received until after the state has reviewed the draft RI/FS and the draft proposed plan prior to the public comment period. Similarly, to the extent possible, community concerns will be factored into the feasibility study and proposed plan. However, community acceptance cannot be assessed definitively until the formal public comment period is held.

Response to comments: 1. Structure and consistency. Although generally supporting the use of the nine criteria in remedy selection, several commenters expressed concern over whether the balancing process ensures selection of remedies that comply with the statutory mandates of CERCLA. In response, EPA believes that the remedy selection process promulgated today effectively harmonizes the somewhat competing requirements of CERCLA, and ensures that remedial actions will fulfill each statutory mandate.

Specifically, some commenters wrote that the absence from the rule of the categories of threshold, balancing, and modifying criteria described in the preamble to the proposal made the function of the criteria in remedy selection unclear and that the proposed rule did not provide sufficient practical guidance on remedy selection.

In response, EPA has modified the proposed rule to provide further clarification and structure in the remedy selection process. First, EPA has added expectations into the rule, in order to provide better guidance on the types of remedies that EPA expects to consider in detailed analysis, and has set out a program goal and management principles (§ 300.430(a)). Second, EPA has added structure to the process by specifying the functional categories of the nine criteria -- threshold, primary balancing or modifying -- in the remedy selection portion of the rule. Third, the rule emphasizes the importance of two of the nine criteria -- long-term effectiveness and permanence, and reduction of toxicity, mobility or volume through treatment -- in the balancing process.

Some commenters opposed the adoption of the proposed remedy selection framework. These commenters criticized the framework as being vague and providing little guidance on the weight to be afforded individual selection criteria or the order in which the criteria should be considered. The commenters criticized the process as likely to vary from site to site, resulting in the selection of different remedies for sites with similar characteristics. According to these commenters, the inconsistency could impair EPA's ability to negotiate settlements with PRPs. One commenter warned that the fluid nature of the proposed decision-making process will make it more difficult for states, other federal agencies, and PRPs to replicate. The commenter fears that EPA will waste time second-guessing remedy selections and justifying how a preferred remedy was identified by a lead agency or a PRP. These commenters requested clear and complete directions on how to select remedies.

In response, EPA believes that the basic remedy selection system as revised presents a sound, workable method for selecting protective remedies while balancing the technical, economic, and practical realities associated with each site and with the program as a whole to arrive at appropriate solutions. EPA believes that flexibility is needed in the remedy selection process precisely because each Superfund site presents a different set of circumstances. A rigid set of criteria for remedy selection, while perhaps more easily reproduced, would not be well suited to such diverse site circumstances, and would be less responsive to Congress' mandate to consider a large number of factors, including protectiveness, permanence and treatment, cost, effectiveness, and state and public participation.

At the same time, EPA agrees that clarification is needed concerning the role and relative importance of the different criteria in remedy selection, and has responded by categorizing the criteria by function (i.e., threshold, balancing, and modifying), and identified balancing criteria that should be emphasized. These revisions add structure to the process and indicate the relative importance of the different criteria. The inclusion of the goal, management principles, and expectations in the rule should also increase national consistency by focusing detailed analysis and remedy selection on fewer, more appropriate alternatives. EPA believes that these changes will make it easier for the public to understand and anticipate EPA decisions.

In addition, proposed § 300.430(f)(3)(iii) (§§ 300.430(f)(1)(ii)(D) and (E) in the final rule) is revised to clarify the relation of the evaluation criteria to the statutory mandates of section 121 of CERCLA. Specifically, the regulation now states that cost-effectiveness is to be determined by comparing the costs and overall effectiveness of alternatives to determine whether the costs are proportionate to the effectiveness achieved. Overall effectiveness for the purpose of this determination includes long-term effectiveness and permanence; reduction of toxicity, mobility, or volume through treatment; and short-term effectiveness. The determination of which alternative utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable takes into account long-term effectiveness and permanence; reduction of toxicity, mobility, or volume through treatment; short-term effectiveness; implementability; and cost, as well as state and community acceptance.

Another revision made to enhance the clarity of the regulation is the direction at § 300.430(f)(1)(ii)(E) that special emphasis is to be afforded alternatives that offer advantages in terms of long-term effectiveness and permanence, and reduction of toxicity, mobility or volume through treatment, in performing the balancing by which the remedy is selected. These two criteria are given primary consideration in the rule and preamble when analyzing the relative merits of the alternatives. These criteria will be the most important, decisive factors in remedy selection when the alternatives perform similarly with respect to the other balancing criteria. When the alternatives provide similar long-term effectiveness and permanence and reduction of toxicity, mobility or volume, the other balancing criteria rise to distinguish the alternatives and play a more significant role in selecting the remedy. For example, if two alternatives offer similar degrees of long-term effectiveness and permanence and reduction of toxicity, mobility or volume through treatment, but one alternative would require more time to complete and would have greater short-term impacts on human health and the environment, the decision-maker would focus on the distinctions between the alternatives under the short-term effectiveness criterion.

One commenter stated that remedies should be evaluated on a national basis, rather that a site-specific basis to, at a minimum, determine the relative importance of each of the nine criteria. According to this commenter, site-specific remedy selection using balancing leads to nationally inconsistent remedies and hides from public view the remedy selection process. A different commenter argued that site-specific factors should dominate the remedy selection process.

EPA believes that today's modifications to the proposal clarify the remedy selection process and help ensure that consistent remedies are selected. The remedy selection process in today's rule, shaped by the program goal and expectations, promotes national consistency while allowing consideration of important site-specific factors. In addition, EPA is developing guidance on expected remedies for specific types of sites (e.g., municipal landfills) and specific types of waste (e.g., PCBs) that will assist in streamlining decision-making and promoting greater consistency.

One commenter suggested that the selection process focus on the risk reduction provided by the alternatives and the cost-effectiveness of each alternative. EPA agrees with the commenter that risk reduction and cost-effectiveness are major considerations in selecting remedial actions. The amount of residual risk remaining after implementation of the remedy is analyzed under the long-term effectiveness and permanence criterion in the detailed analysis. The trade-offs associated with this criterion are balanced with the other criteria when selecting a remedy. However, today's rule affords extra significance to the trade-offs associated with the "long-term effectiveness and permanence" and "reduction of toxicity, mobility or volume through treatment" criteria when comparing the attributes associated with the alternatives.

One commenter noted that EPA had omitted in the proposal a reference to the statute's bias against off-site land disposal of untreated waste. EPA notes the omission and has changed proposed § 300.430(f)(3)(iii) (§ 300.430(f)(1)(ii)(E) in the final rule) to clarify that an alternative that relies on the off-site transport and land disposal of untreated hazardous substances will be the least favored alternative where practicable treatment technologies are available, as determined by analysis using the nine criteria. EPA notes that CERCLA does not express a preference for or bias against off-site remedies involving treatment and that the NCP is similarly neutral.

Many commenters felt that protection of human health and the environment was appropriately established as a threshold criterion. One commenter requested that protectiveness be clearly identified as the dominant criterion for evaluating responses conducted by PRPs. Another commenter felt that the proposed NCP did not make it clear that the protection of human health and the environment must be met at a minimum by all remedies.

Section 121 of CERCLA makes clear, and the legislative history confirms, that the overarching mandate of the Superfund program is to protect human health and the environment from the current and potential threats posed by uncontrolled hazardous waste sites. This mandate applies to all remedial actions and cannot be waived. This priority has been reflected in the rule by including protection as a threshold criterion that must be satisfied by all remedies selected under CERCLA (§ 300.430(f)(1)(ii)(A)).

One commenter noted that, in general, if there will be significant exposure during implementation of the remedy, a remedial option that can be implemented quickly is preferable, in terms of the short-term protection it affords, to one that can only be implemented slowly but provides greater long-term effectiveness. EPA responds by cautioning against over-generalization and attempting to create too rigid a formula for remedy selection. EPA agrees that unacceptable short-term impacts can cause an alternative to be considered non-protective of human health and the environment and can remove that alternative from consideration as a viable option. However, in this example, the remedy that is less effective in the short-term (i.e., takes longer to implement) also provides greater long-term effectiveness than the remedy without unacceptable adverse short-term impacts. In this situation, generally EPA would evaluate the possible measures available to mitigate the short-term impacts and thus allow the alternative to be protective during implementation. This alternative, in other words, would not immediately be ruled out, due to its positive performance under the long-term effectiveness and permanence criterion.

One commenter cautioned that the threshold criteria should not be overly restrictive, i.e., must not include overly conservative safety factors. EPA believes it uses a sound, reasonable approach in judging the overall protection afforded by a remedial alternative. (See preamble description of § 300.430(e) for a complete discussion of evaluating risks associated with potential alternatives.) As for the requirement to meet ARARs, EPA is simply following the mandate in the statute that on-site remedies selected under CERCLA section 121 must meet all "applicable" and "relevant and appropriate" requirements of federal and state environmental laws, unless a waiver is appropriate under the conditions set out in CERCLA section 121(d)(4). EPA has discretion to determine whether any, all, or only a portion of a requirement is relevant and appropriate, consistent with the factors set out in final rule § 300.400(g)(2); however, once determined to be relevant and appropriate, all relevant and appropriate portions of the requirement must be applied as though they were applicable (again, unless a waiver is available).

Some commenters concluded that since Congress did not list compliance with ARARs as one of the remedy selection criteria in section 121(b), this criterion should not be considered a threshold criterion. In addition, some commented that protection of human health and the environment should receive more emphasis than compliance with ARARs. EPA believes that CERCLA section 121(d)(2)(A) establishes compliance with ARARs as a threshold criterion for remedy selection. That section requires the selection of a remedial action that "at least attains such legally applicable or relevant and appropriate standard, requirement, criteria, or limitation" (subject to waivers in CERCLA section 121(d)(4)). In some situations compliance with ARARs may not result in protective remedies because of exposure to multiple chemicals or through multiple exposure pathways that have additive or synergistic effects. In this case a remedy may need to achieve levels more stringent than the ARARs to ensure protection.

One commenter argued that since different remedies must meet different ARARs and, because meeting some ARARs precludes meeting other ARARs, some site cleanups will not be able to meet all ARARs. Another commenter sought clarification on comparing alternatives when different ARARs are identified and questioned how EPA would prioritize alternatives if none meets all the identified ARARs.

In response, EPA notes that in the detailed analysis, each alternative is evaluated individually to determine if the alternative will be ARAR-compliant. Each alternative will possess its own set of ARARs, and frequently ARARs for one alternative will not be ARAR for another alternative for the same site (e.g., an incineration alternative may have air emissions ARARs not applicable to a bioremediation alternative). Alternatives need only attain requirements that are applicable or relevant and appropriate for that alternative, not all ARARs identified for any alternative at the site. Alternatives that cannot meet all of their respective ARARs must justify a waiver under CERCLA section 121(d)(4) (final rule 300.430(f)(1)(ii)(C)) for each requirement that will not be met in order for that alternative to be eligible for selection as the remedial action. Alternatives involving ARAR waivers, of course, must also provide adequate protection of human health and the environment in order to be eligible for selection as the remedy.

2. Role of cost in cost-effectiveness determination. The appropriate role of cost in remedy selection has been a controversial issue. EPA received questions concerning the weight afforded each of the criteria, including cost, when balancing the trade-offs among the criteria. Under the proposal and today's

rule, cost is considered in making two statutory determinations required for selected remedies: that the remedy is cost-effective (i.e., the remedy provides effectiveness proportionate to its cost) and that it utilizes permanent solutions and treatment to the maximum extent practicable. The comments that address the role of cost in the cost-effectiveness determination are discussed first.

According to several commenters, Congress clearly intended that remedies would be selected based on the protectiveness afforded by the alternative and cost would be used only to select from among protective alternatives. A different commenter argued that the cost-effectiveness mandate must be used to ensure that remedial actions, which must be protective of human health and the environment, ARAR-compliant, and utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable, achieve these mandates at the lowest possible cost.

EPA agrees that cost can only be considered in selecting a remedy from among protective alternatives. The remedy selection process requires that alternatives must be demonstrated to be protective and ARAR-compliant (or justify a waiver) in order to be eligible for consideration in the balancing process by which the remedy is selected. This sequence of steps ensures that the selected remedy will be protective of human health and the environment and that protection of human health and the environment will not be compromised by other selection factors, such as cost. Several commenters supported the proposed remedy selection process believing it ensures the selection of a cost-effective remedy while at the same time not affording an overly dominant role to cost.

Some commenters argued that cost should only be used to implement a selected, protective remedy in the most cost-efficient manner, i.e., that cost-effectiveness should only be considered after the remedy has been selected to allow implementation in the least costly manner. The commenters assert that their interpretation follows from the statute and the legislative history. Another commenter asserted that cost-effectiveness primarily is a check to prevent unreasonable expenditures and to ensure remedies are implemented in a cost-efficient (and not necessarily the lowest cost) manner.

In response, EPA believes that cost is a relevant factor for consideration as part of the selection of the remedy from among protective, ARAR-compliant alternatives, and not merely as part of the implementation phase. EPA believes this position is consistent with both the statute and legislative history.

CERCLA, at section 121(a), states that "the President shall select appropriate remedial actions ... which are in accordance with this section and, to the extent practicable, the national contingency plan, and which provide for cost-effective response." Thus, cost-effectiveness is established as a condition for remedy selection, not merely as a consideration during remedial design and implementation. Further in the statute, at section 121(b)(1), Congress again repeats the requirement that only cost-effective remedies are to be selected, as follows: "The President shall select a remedial action that is protective of human health and the environment, that is cost effective, and that utilizes permanent solutions and alternative treatment ... to the maximum extent practicable." Again, cost-effectiveness is cited along with protectiveness as a key factor to consider in selecting the remedy. EPA believes that the statutory language supports the use of concepts of "cost" and "effectiveness" in this rule's nine evaluation criteria that provide the basis for the remedy selection decision, rather than as factors to be applied after the remedy has been selected.

EPA believes that this approach is also in line with the legislative history underlying the SARA Amendments, which added section 121 to CERCLA. The Conference report on SARA discussed the concept of cost-effectiveness, and specifically approved of the approach to cost-effectiveness taken by EPA in the 1985 NCP:

> The provision that actions under both sections 104 and 106 must be cost-effective is a recognition of EPA's existing policy as embodied in the National Contingency Plan.

H.R. Rep. 962, 99th Cong., 2d Sess. 245 (1986) (emphasis added).

Specifically, the 1985 NCP required that:

> in selecting the appropriate extent of remedy from among the alternatives that will achieve adequate protection of public health and welfare and the environment in accordance with 300.68(i)(1), the lead agency will consider cost, technology, reliability, administrative and other concerns, and their relevant effects on public health and welfare and the environment.

40 CFR 300.68(i)(2) (emphasis added). Thus, the 1985 NCP provided that cost should be a factor in the selection of a remedy, and emphasized that cost may be used to select "among" those alternatives that are protective; significantly, the 1985 rule does not contemplate a unique protective remedy in most cases, for which cost would simply be used to decide on possible implementation mechanisms.

The preamble to the 1985 NCP goes on to explain in more detail the role of cost in that rule:

> The approach embodied in today's rule is to select a cost-effective alternative from a range of remedies that protects the public health and welfare and the environment. First, it is clear that if all the remedies examined are equally feasible, reliable, and provide the same level of protection, the lead agency will select the least expensive remedy. Second, where all factors are not equal, the lead agency must evaluate the cost, level of protection, and reliability of each alternative. In evaluating the cost of remedial alternatives, the lead agency must consider not only immediate capital costs, but also the costs of operating and maintaining the remedy for the period required to protect public health and welfare and the environment. For example, the lead agency might select a treatment or destruction technology with a higher capital cost than long-term containment because treatment or destruction might offer a permanent solution to the problem.
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> Finally, the lead agency would not always select the most protective option, regardless of cost. The lead agency would instead consider costs, technology, reliability, administrative and other concerns, and their effects on public health and welfare and the environment. This allows selection of an alternative that is the most appropriate for the specific site in question.

50 FR at 47921 (Nov. 20, 1985) (emphasis added).

Today's rule continues the approach embodied in the 1985 NCP, although some of the terminology has changed. First, the approach promulgated today requires that alternatives are determined to be adequately protective and ARAR-compliant before cost-effectiveness is considered in remedy selection (see § 300.430(f)(1)(ii)(D)). Second, today's rule recognizes that a range of alternatives can be protective and ARAR-compliant, and that cost is a legitimate factor for choosing among such alternatives.

The 1985 NCP based the cost-effectiveness determination on technology, reliability, administrative, and other concerns and their effects on public health and welfare and the environment. Today's rule considers basically the same factors but has recast them to reflect CERCLA's preferences and mandates. For example, technology is considered under the criterion of reduction of toxicity, mobility, or volume through treatment for treatment performance; long-term effectiveness and permanence for residuals, and short-term effectiveness for adverse impacts. Reliability of treatment technology is considered under reduction of toxicity, mobility, or volume through treatment. Reliability of long-term management controls used to address treatment residuals is considered under long-term effectiveness and permanence. Effects of alternatives on protection of human health and the environment is considered under short- and long-term effectiveness. Administrative and other concerns are replaced by the implementability criterion, which is not considered in determining cost-effectiveness but is used in determining the extent to which permanent solutions and treatment can be practicably utilized, along with state and community acceptance.

In addition to endorsing the 1985 NCP approach to cost-effectiveness, the SARA Conference Report went on to discuss the Conferees' view of the role of cost-effectiveness in the remedy selection process:

> The term "cost-effective" means that in determining the appropriate level of cleanup the President first determines the appropriate level of environmental and health protection to be achieved and then selects a cost-efficient means of achieving that goal. Only after the President determines, by the selection of applicable or relevant and appropriate requirements [ARARs], that adequate protection of human health and the environment will be achieved, is it appropriate to consider cost-effectiveness.

H.R. Rep. 962, 99th Cong., 2d Sess. 245 (1986).

As the Conference Report contemplated, where there is an applicable or relevant and appropriate requirement (ARAR) that defines the "appropriate level of environmental and health protection to be achieved," e.g., a Maximum Contaminant Level (MCL) for ground water, EPA will select an appropriate and cost-efficient technology for achieving that level under today's rule.[10] If two or more alternatives are determined to be comparably effective in achieving that MCL standard and level of protection, the least costly of the alternatives would be selected as the cost-effective solution under today's rule.

However, the situation is often more complicated. Indeed, in most cases, there will not be one level or standard -- e.g., one contaminant-specific ARAR -- that defines protectiveness, but rather, there will be a range of protective, ARAR-compliant alternatives eligible for selection that vary in their costs and effectiveness.

There are two principal reasons for this. First, ARARs are not available in all situations. Contaminant-specific ARARs have been promulgated for a small percentage of contaminants,[11] and even if contaminant-specific ARARs were available for some relevant substances, they generally do not define protective levels for contaminated soils nor do they always define protective levels for mixtures of chemicals (typical Superfund site situations). Thus, EPA must evaluate additional information to determine what remedies would protect human health and the environment; the answer, as reflected by this final rule's definition of an acceptable risk "range," is that there are generally a range of remedies that may be protective.

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[10] See final rule § 300.430(f)(1)(ii)(D), which provides that only after an alternative is found to be "protective and ARAR-compliant," is the alternative evaluated based on cost or other balancing factors.

The second major reason that there will not be one level or standard that defines protectiveness in most cases, is that the NCP requires the development of alternatives that represent distinct strategies for cleaning up the site or site problem. These alternatives will achieve protection of human health and the environment through different methods (e.g., treatment, containment) or combinations of methods and will often involve different ARARs, particularly action-specific requirements.[12] (As noted above, e.g., incineration may have a potential ARAR relating to air emissions that a chemical treatment option would not.) Different methods of protection typically will vary in their costs and effectiveness (e.g., treatment residuals, short-term impacts). Where costs and effectiveness vary among protective and ARAR-compliant alternatives, it is necessary to evaluate the relationship of costs to effectiveness within and across alternatives to identify which options afford overall effectiveness proportionate to their costs.

EPA believes that the intent of the SARA Conference Report was to make clear that cost-effectiveness cannot be used to justify selection of a remedy that does not protect human health and the environment. By following the approach of the 1985 NCP, and by considering cost-effectiveness only after EPA has identified protective remedial options, EPA believes its approach is consistent with the objectives and intent of Congress.

Some commenters urged that EPA highlight cost in the remedy selection process, elevating cost-effectiveness to a threshold criterion, in recognition of the mandate for cost-effective remedies. Several commenters suggested several reasons why cost-effectiveness should be considered a threshold criterion. One commenter stated that the legislative history indicates that cost-effectiveness should be a threshold. Another commenter indicated that cost is considered throughout the FS and is the only truly objective criterion of the nine and that, in practice, EPA has made its decisions with cost as a primary consideration. Another commenter sought explicit confirmation in the rule that regardless of how the five factors balance out, only cost-effective remedies may be selected. Other commenters wanted clarification concerning the weight afforded each of the criteria, including cost, when balancing the trade-offs among the criteria.

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[11] For example, although there are a large number of hazardous substances that may contaminate the ground water, final MCL levels have only been promulgated for approximately 31 chemicals (assuming "radionuclides" are grouped, and considered to be one chemical). See 40 CFR 141.11 - 141.16; 40 CFR 141.61 - 141.62; and 54 FR 27567 (June 29, 1989).

[12] Location-specific ARARs and action-specific ARARs are discussed in more detail in the preamble to the proposed NCP, 53 FR at 51437 (Dec. 21, 1988).

In response to the comments urging an increased role of cost or requesting clarification on the role of cost, EPA notes that it has established cost as one of the evaluation criteria in the detailed analysis and that the final rule explains more clearly how cost is to be considered in determining cost-effectiveness and the practicable extent to which permanent solutions and treatment can be used.

EPA agrees that cost-effectiveness is like the two threshold criteria in that it is a statutory requirement with which an alternative must comply in order to be eligible for selection as the remedy. The statutory finding of cost-effectiveness is not "balanced," with any other statutory requirement, but rather certain evaluation criteria are balanced to reach the conclusion that the remedy is cost-effective. More than one alternative can be cost-effective.

EPA has decided, however, not to establish cost-effectiveness as a threshold finding largely due to the sequence in which the statutory findings are made. When EPA begins the selection step, information is readily available from the detailed analysis to determine immediately which alternatives are protective and ARAR-compliant and therefore eligible for selection. The focus of the remedy selection process from this point forward is on drawing conclusions about the distinguishing differences among eligible options to determine which alternative represents the maximum extent to which permanent solutions and treatment can be utilized in a cost-effective manner. The findings of cost-effectiveness and the extent to which permanent solutions and treatment are practicable both derive from the balancing of these differences or tradeoffs.

Commenters asked EPA to clarify the measure of effectiveness used in the determination that costs are proportionate to an alternative's overall effectiveness. Overall effectiveness, as used in the cost-effectiveness determination, is a composite of long-term effectiveness and permanence; reduction in toxicity, mobility or volume of the hazardous substances through treatment;

and short-term effectiveness. The relationship between overall effectiveness and cost is examined across all the alternatives to identify which options afford effectiveness proportional to their cost.

Because some commenters were confused by the description of cost-effectiveness in proposed § 300.430(f)(4)(D)("the remedy provides overall effectiveness proportional to its costs"), EPA believes that it is necessary to better express its intent. This description of cost-effectiveness is in final §§ 300.430(f)(1)(ii)(D) and 300.430(f)(5)(ii)(D).

EPA uses the term "proportional" because it intends that in determining whether a remedy is cost-effective, the decision-maker should both compare the cost to effectiveness of each alternative individually and compare the cost and effectiveness of alternatives in relation to one another (see 53 FR 51427-28). In analyzing an individual alternative, the decision-maker should compare, using best professional judgment, the relative magnitude of cost to effectiveness of that alternative. In comparing alternatives to one another, the decision-maker should examine incremental cost differences in relation to incremental differences in effectiveness. Thus, for example, if the difference in effectiveness is small but the difference in cost is very large, a proportional relationship between the alternatives does not exist. The more expensive remedy may not be cost-effective. EPA does not intend, however, that a strict mathematical proportionality be applied because generally there is no known or given cost-effective alternative to be used as a baseline. EPA believes, however, that it is useful for the decision-maker to analyze among alternatives, looking at incremental differences.

EPA believes that using the term "proportional" describes well this type of multidimensional analysis. Using such an analysis should enable the decision-maker to determine whether an alternative represents a reasonable value for the money; more than one alternative may be considered cost-effective.

In response to the comment that cost should be used to distinguish between comparably protective remedies, EPA notes that many alternatives will be protective but will achieve that protection through different methods or combinations of methods, such that the commenter's characterization of alternatives as "comparably protective" may not be appropriate (though all alternatives may be protective). However, alternatives may emerge from the detailed analysis as comparably "effective," in terms of the three effectiveness criteria of long-term effectiveness and permanence, reduction of toxicity, mobility or volume through treatment and short-term effectiveness; in that event, the least costly of the comparably effective alternatives would be identified as cost-effective while the others would not. However, because the remedy selection process usually involves consideration of a range of distinct alternatives that generally vary in their effectiveness and cost, most often a comparative analysis of the relationship between the overall effectiveness of the alternatives and their costs will be required to determine which alternatives are cost-effective (i.e., provide overall effectiveness proportional to their costs).

One commenter suggested adding the following to proposed § 300.430(f)(3): "Remedies selected shall be cost-effective relative to other alternatives. In evaluating the cost-effectiveness of proposed alternatives, EPA shall take into account the total short- and long-term cost of such actions, including the costs of operation and maintenance for the entire period during which such activities will be required. A cost-effective remedy is one with costs proportional to the remedy's overall effectiveness."

EPA has not incorporated the entire suggested statement into the rule. EPA believes the commenter's statement is too narrow, because several types of costs are factored into the evaluation of the cost of the remedy during the detailed analysis. These costs include, but are not limited to, the direct and indirect costs identified by the commenter. Also, the language does not reflect that overall effectiveness involves a composite of effectiveness factors, i.e, long-term effectiveness and permanence, toxicity, mobility or volume reduction through treatment, and short-term effectiveness. EPA does agree with the commenter that a cost-effective remedy is one with costs proportional to the remedy's overall effectiveness. A more detailed discussion of the types of costs that may be considered is included in EPA's RI/FS guidance (cited above).

One commenter argued that because the requirement that all remedies be cost-effective is unconditional, should EPA select a remedy requiring treatment techniques that are more stringent than health-based ARARs or the 10^{-4} to 10^{-6} acceptable risk range, EPA must demonstrate the ability of the techniques to provide meaningful and necessary risk reductions at a reasonable cost. Although EPA generally will not select a remedial action specifically to achieve a risk level below 10^{-6} (e.g., 10^{-7}), technology used in implementing the selected remedy could actually achieve additional risk reduction (e.g., 10^{-7}). EPA agrees with the commenter that as with any remedy selected under CERCLA section 121, a remedy selected with a risk level below 10^{-6} must be cost-effective (and meet the other requirements of section 121).

Another commenter suggested that EPA add language to the rule stating that EPA shall select a remedy with associated risk lower than 10^{-4} only when necessary for protection of human health or the environment or compliance with ARARs, or if EPA can demonstrate that such risk reductions can be achieved at a reasonable cost. In response, EPA explains that once levels are established for carcinogens that will satisfy ARARs, EPA will consider cumulative or synergistic effects from multiple contaminants or multiple exposures. For carcinogens without ARARs, 10^{-6} is a point of departure from which technical, uncertainty and exposure factors are used to establish preliminary remediation goals, which include a target risk level. Final remediation goals are determined in the remedy selection decision by balancing the major trade-offs among the alternatives based on the evaluation criteria (as described in § 300.430(f)(1)(ii)), which will establish the specific level within the acceptable risk range the remedy will be designed to achieve. (See preamble discussion above on risk range.)

One commenter requested clarification that the cost-effectiveness requirement applies equally to Fund-financed and PRP-financed remedies. However, several other commenters asserted that the cost-effectiveness requirement pertains only to remedies that EPA intends to seek from PRPs or to fund itself. When the PRPs are proposing a remedy, according to these commenters, cost-effectiveness is a matter only for the PRPs, not the government.

EPA provides the following clarification. The statutory requirement that each remedy selected be cost-effective applies to all Fund-financed as well as all PRP-financed remedies under CERCLA.

3. Cost and practicability. Some commenters requested clarification of the proper analysis of trade-offs between cost-effectiveness and the practical limitations of treatment technologies on one hand, and the mandate to utilize treatment to the maximum extent practicable on the other. In addition, one commenter wrote that the proposed process blurs the two concepts of cost effectiveness and practicability. Some commenters noted that cost must be considered in determining what is "practicable." EPA responds that cost is considered in making both findings as are certain other criteria. Cost is considered in determining cost-effectiveness to decide which options offer a reasonable value for the money in light of the results they achieve. Cost differences must also be considered in the context of all other differences between alternatives to reach a conclusion as to which alternative, all things considered, provides the most appropriate solutions for the site or site problem. It is this judgment that determines the maximum extent to which permanent solutions and treatment are practicable for the site or site problem being addressed. Criteria other than cost that are also used to make both findings are long-term effectiveness and permanence, reduction in toxicity, mobility or volume through treatment, and short-term effectiveness. However, the determination of "practicability" also takes into account the implementability of the remedy and state and community acceptance.

In response to the comment that EPA may not select a non-permanent remedy if a permanent remedy is practicable, EPA notes that the final balancing by which the remedy is selected decides, from among protective, cost-effective alternatives, the extent to which permanent solutions and treatment are practicable for the site. EPA must select an alternative providing the maximum permanence and treatment practicable. EPA uses the balancing and modifying criteria to determine what is practicable. A commenter indicated that PRPs must be required to clean up the released hazardous substances to the maximum extent practicable. EPA agrees; PRP cleanups are subject to the same standards as Fund-financed remedial actions.

Several commenters addressed specifically the statutory mandate to utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. One commenter suggested establishing this statutory mandate as a threshold criterion. Similarly, another commenter argued that since the concepts of protection of human health and the environment, cost-effectiveness, and the preference for permanent solutions and alternative treatment technologies or resource recovery technologies are specifically grouped together by Congress, these criteria should be balanced with each other in the same context in the remedy selection process of the NCP. The commenter urged elimination of the distinctions between the threshold and primary balancing criteria.

EPA believes that it has established an appropriate process for addressing all these provisions, first by identifying protective, ARAR-compliant alternatives eligible for selection, and then by balancing tradeoffs among alternatives with respect to the other pertinent criteria to identify a cost-effective alternative that utilizes permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. EPA does not believe that it is possible or appropriate to address the mandate to utilize permanent solutions and treatment to the maximum extent practicable as an evaluation criterion because this mandate represents a conclusion reached about a remedy on the basis of several evaluation factors.

Some commenters stressed that the statute does not require permanent solutions or treatment in all cases. Another commenter argued different criteria should be applied if EPA determines that a site is "beyond technical and economic remediation." EPA agrees that under CERCLA, the requirement to select permanent solutions and treatment technologies is qualified by practicability. This concept ensures selection of remedies appropriate to the site problems.

Some commenters noted that cost must be considered in determining what is "practicable." As discussed above, the cost of the remedy is among the factors considered in determining the use of permanent solutions and treatment to the maximum extent practicable.

4. State and community acceptance. One comment believed state and community acceptance were appropriately categorized as modifying criteria. This commenter concluded that in the statute Congress did not afford the same weight to state and community acceptance as the other criteria. Another commenter felt that the proposal afforded too much weight to state and community acceptance and that these interests would exercise undue influence over the selection of a remedy. EPA disagrees with the latter comment. CERCLA calls for meaningful state and community involvement in selecting the remedial action. See, e.g., sections 117 and 121(f) of CERCLA. Today's rule provides a framework for such involvement. EPA notes, however, that information on state and community acceptance generally will not be complete until comments are received on the proposed plan. Once all comments are evaluated, state and community acceptance may prompt modifications to the preferred remedy and are thus designated modifying criteria. In no case will EPA sacrifice protection to achieve state and community acceptance.

Several commenters suggested that consideration of state acceptance as a modifying criterion did not adequately take into account state concerns in remedy selection. One commenter stated that the proposed approach would likely result in state input not being factored in until the ROD was being prepared, which would be too late for addressing serious concerns. For this reason, one commenter suggested making state acceptance a primary balancing criterion.

EPA believes that the process as proposed adequately addresses state interests. Often, a state agency may be the lead agency for RI/FS activities at a site, directly developing, in consultation with EPA, the alternatives that will be analyzed in detail, and the option that will be put forward as the preferred alternative in the proposed plan. When EPA is the lead agency, states participate as the support agency and are involved in these same decisions. The rule provides for consideration of state concerns throughout the remedial process, noting that such concerns should be reflected, to the extent possible, in the proposed plan. However, the rule acknowledges that the assessment of state concerns may not be completed until after the formal public comment period has been held and, therefore, highlights consideration of this criterion in the final remedy selection decision.

EPA received comments urging express recognition that Indian tribes have the opportunity, along with states, to review draft

RI/FS reports prior to public review. These commenters requested that EPA afford substantial deference to Indian tribe and state comments on the RI/FS workplan, the ROD and regarding ARARs. In response, EPA notes that § 300.515(b) allows Indian tribes to be treated the same as states in the remedial process if certain conditions are met, thus ensuring the Indian tribes have the opportunity to review and comment on significant documents such as RI/FSs and RODs. EPA recognizes the substantial role that states and Indian tribes play in the remedial process and does not believe further emphasis is necessary in the remedy selection portion of the rule.

Several commenters argued that community acceptance is a significant criterion and should have more influence in alternatives evaluation and remedy selection. These commenters urged that this criterion be made a primary balancing criterion. The commenters felt that community, as well as state concerns, should be considered throughout the remedial process, highlighting in their comments the desire to participate in the development of RI/FS workplans and to participate in the detailed analysis. Similar to the concerns expressed on the role of state acceptance, some commenters cautioned that if community acceptance is addressed only at the ROD stage, lack of acceptance could result in serious conflict between EPA, the state and the community.

EPA agrees that community acceptance is extremely important and has established a Superfund community relations program to facilitate communication between the community and the lead and support agencies. To the degree that community acceptance of the alternatives is known at the time of the proposed plan, it will be taken into account in the development of the plan. Additionally, the public may access the administrative record throughout the remedial process and may voice concerns to the lead agency regarding the contents of the documents contained in the record at any time.

Due to the fact that information with respect to this factor generally will not be complete until after the official public comment period, EPA has not included community acceptance as a primary balancing criterion. A correct assessment of community acceptance necessarily is based on hearing from the community as a whole. Accordingly, EPA believes it would be premature to address this factor conclusively prior to the public comment period, during which EPA may hear from citizens who have not been vocal earlier during the RI/FS process. Although community acceptance is not addressed as early as the primary balancing factors, which serve as the principal basis for determining the preferred alternative, it nonetheless is an important factor in EPA's final remedy selection decision. If community acceptance is known earlier, it can be a factor in determining the preferred alternative.

In reference to the five-year review, two commenters generally endorsed EPA's interpretation of the statutory provision in the preamble that calls for a five year review whenever the selected remedy will leave wastes on site above levels that allow for unlimited use and unrestricted exposure. One commenter agreed that the five year review should focus on whether the remedy is still protective and should consist of an examination of monitoring data rather than new field investigations. Another commenter said that the five year review should also examine new technologies that may have been developed since the remedy was implemented, to the extent the remedy is not protective. Generally, EPA agrees with these comments, and guidance is under development to define the five-year review. EPA agrees that the review should generally focus on monitoring data, where available, to evaluate whether the remedy continues to provide adequate protection of human health and the environment. New technologies will be considered where the existing remedy is not protective, but the five-year review is not intended as an opportunity to consider an alternative to a protective remedy that was initially selected.

As provided in CERCLA section 120(e)(4), for federal facility sites subject to interagency agreements (IAGs) under CERCLA section 120, the selection of a remedial action shall be "by the head of the relevant department, agency or instrumentality and the Administrator [of EPA] or, if unable to reach agreement on selection of a remedial action, selection by the Administrator." This provision is incorporated in the final rule at § 300.430(f)(4)(iii). EPA notes that where there are disagreements, EPA may invoke the process provided for under E.O. 12580, section 10(a), to facilitate resolution of issues, or a dispute resolution process may be specified in the IAG itself. In any case, however, the final remedy selection decision will be reserved for the EPA Administrator, consistent with CERCLA sections 120(e)(4) and 120(g).

Final rule: Section 300.430(f), the selection of remedy section of the final rule, has been substantially revised from the proposed rule in response to comments received. Many of these changes reflect EPA's attempt to clarify the role of the nine criteria during the remedy selection process and how the selected remedy complies with the statutory requirements for Superfund remedies. The promulgated rule also clarifies the role of the proposed plan (§§ 300.430(f)(i)(ii) and 300.430(f)(2)) and the final remedy selection (§ 300.430(f)(4)), taking into consideration state and community acceptance of the proposed plan.

1. The rule promulgated today moves the discussion of the hierarchy of criteria in remedy selection from the detailed analysis of alternatives section of the proposal rule to the selection of remedy section in the final rule

(§ 300.430(f)(1)(i)). The hierarchy established in today's rule represents an important change from the hierarchy described in the preamble to the proposed rule. This change makes clear that overall protection of human health and the environment and compliance with ARARs (unless grounds for invoking a waiver is provided) are threshold criteria that must be satisfied by an alternative before it can be selected. Long-term effectiveness and permanence; reduction of toxicity, mobility, or volume through treatment; short-term effectiveness; implementability; and cost are primary balancing criteria. However, today's rule places special emphasis on long-term effectiveness and permanence, and reduction of toxicity, mobility, or volume through treatment, during the remedy selection (§ 300.430(f)(1)(ii)(E)). State and community acceptance are modifying criteria that may have significant input in the final remedy selection (§ 300.430(f)(4)(i)) and, to the degree they are available earlier, may affect the development of alternatives and the selection of the proposed plan. Formal consideration of the modifying criteria may not be available until after the proposed plan, although informal consideration may be made earlier.

2. Today's rule makes clear that the determinations that the remedy is: (1) cost-effective and (2) utilizes permanent solutions and alternate treatment technologies or resource recovery technologies to the maximum extent practicable, are separate findings that both result from balancing conducted during the remedy selection process. The final rule also reflects the statutory bias against off-site land disposal of untreated waste during remedy selection.

Name: **Section 300.430(f)(5). Documenting the decision.**

Proposed rule: Proposed §§ 300.430(f)(2) and (f)(4) (renumbered as 300.430(f)(5)) required the publication of a notice of availability of the proposed plan and the final remedial action plan. The proposed plan describes and solicits comments on the preferred remedial action alternative and the other alternatives considered. Following receipt and consideration of public comments on the proposed plan, the remedy is selected and documented in a ROD. The ROD summarizes the problems posed by a site, the technical analysis of alternative ways of addressing those problems, and the technical aspects of the selected remedy that are later refined into design specifications. The ROD is also a legal document that, in conjunction with the supporting administrative record, demonstrates that the lead and support agency decision-making has been carried out in accordance with statutory and regulatory requirements and that explains the rationale by which remedies were selected. Finally, RODs are important public documents that summarize key facts discovered, analyses performed, and decisions reached by the lead and support agencies. The general process of documenting decisions is similar for either operable units or comprehensive remedial actions; however, the content and level of detail will vary depending on the scope of the action.

Response to comments: Few comments were received on the remedy selection documentation requirements. In general, those comments requested that EPA indicate that the ROD should explicitly document how each of the nine evaluation criteria have been considered and should include the reasoning on all key issues addressed in the decision process, including the bases for remedial objectives and an explanation of why ARARs are applicable or relevant and appropriate. EPA agrees that the consideration of the nine evaluation criteria, the reasoning behind all key decisions, the bases for remedial objectives, and the justification of the ARAR determinations should be included in the ROD and sufficient discussion needs to be included in the proposed plan so that the basis for the proposed remedy can be clearly understood. The ROD should include a brief summary of the problems posed by the site, the alternatives evaluated as potential remedies, the results of that analysis, the rationale for the remedial action being selected , and the technical aspects of the selected action. However, EPA believes that proposed § 300.430(f)(4)(renumbered as § 300.430(f)(5)) already required the presentation and discussion of these items and that no change to the rule is necessary. This section requires an explanation of how the nine evaluation criteria were used to select the remedy and sets forth the following requirements for all RODs:

1. All facts, analysis of facts, and site-specific policy determinations considered in the course of carrying out the selection of remedy.

2. A demonstration that the decision was made in accordance with statutory and regulatory requirements. The ROD shall discuss how the requirements of section 121 of CERCLA have been addressed.

3. A description of the remediation goal(s) and/or other performance standards that the remedial action is expected to achieve.

4. A description of whether or not hazardous substances, pollutants, or contaminants will remain at the site at levels requiring a five-year review of the response action.

5. A discussion of significant changes in the final selected remedy from the preferred alternative. A responsiveness summary that identifies and responds to significant comments should be available with the ROD. This responsiveness summary should include lead agency responses to comments made by the support agency, as recommended by one commenter.

In addition, EPA has established detailed guidance on proposed plans, RODs and other decision documents in "Interim Final Guidance on Preparing Superfund Decision Documents" OSWER Directive No. 9335.3-02 (October 1989).

A commenter recommended deleting the phrase "as appropriate" from the requirement to document all facts, analyses of facts, and site-specific policy decisions in the ROD. In response, EPA believes that in certain situations, some information may not need to be included in the ROD, e.g., where the information is already documented adequately in the administrative record. In other cases, a document may not be appropriate for inclusion in the administrative record at all (see the discussion in Subpart I on what is appropriate for inclusion in the administrative record). Thus, EPA is not removing the phrase "as appropriate" from the rule.

Similarly, this commenter recommended that the phrase "as appropriate" be deleted from the requirement to indicate remediation levels, arguing that such levels should always be documented in the ROD. EPA agrees that whenever remediation levels, which have been renamed remediation goals, are established they should be documented in the ROD. However, EPA believes it is necessary to retain existing language to provide for RODs for interim actions, which may not always specify final remediation goals, and for decisions that select no action, which will not establish remediation goals.

Final rule: Minor clarifying changes are being made to proposed § 300.430(f)(4)(renumbered as final § 300.430(f)(5)). The rule notes that the documentation in the proposed plan and the ROD should be at a level of detail appropriate to the site situation.

Name: Ground-water policy.

Background: EPA's Superfund program uses EPA's Ground-Water Protection Strategy as guidance when determining the appropriate remediation for contaminated ground water at CERCLA sites. EPA's Ground-Water Protection Strategy establishes different degrees of protection for ground waters based on their vulnerability, use, and value. The goal of EPA's Superfund approach is to return usable ground waters to their beneficial uses within a timeframe that is reasonable given the particular circumstances of the site. The Superfund remedial process assesses the characteristics of the affected ground water as the first step in deciding the remediation goal for ground-water restoration, the timeframe within which the restoration will occur, and the most appropriate method for achieving these goals. A determination is made as to whether the contaminated ground water falls within Class I, II, or III. (Guidance for making this determination is available in "EPA Guidelines for Ground-Water Classification" (Final Draft, December 1986).)

Reasonable restoration time periods may range from very rapid (one to five years) to relatively extended (perhaps several decades). EPA's preference is for rapid restoration, when practicable, of Class I ground waters and contaminated ground waters that are currently, or likely in the near-term to be, the source of a drinking water supply. The most appropriate timeframe must, however, be determined through an analysis of alternatives. The minimum restoration timeframe will be determined by hydrogeological conditions, specific contaminants at a site, and the size of the contaminant plume. If there are other readily available drinking water sources of sufficient quality and yield that may be used as an alternative water supply, the necessity for rapid restoration of the contaminated ground water may be reduced.

More rapid restoration of ground water is favored in situations where a future demand for drinking water from ground water is likely and other potential sources are not sufficient. Rapid restoration may also be appropriate where the institutional controls to prevent the utilization of contaminated ground water for drinking water purposes are not clearly effective or reliable. Institutional controls will usually be used as supplementary protective measures during implementation of ground-water remedies.

For Class I and II ground waters, preliminary remediation goals are generally set at maximum contaminant levels, and non-zero MCLGs where relevant and appropriate, promulgated under the Safe Drinking Water Act or more stringent state standards (see ARARs preamble section below on "Use of maximum contaminant level goals for ground-water cleanups"). CERCLA alternate concentration limits may also be used if the requirements of CERCLA section 121(d)(2)(B)(ii) are met (see ARARs preamble section below on "Use of alternate concentration limits (ACLs).") The method for establishing ACLs under CERCLA generally considers the factors specified for establishing ACLs under RCRA with several additional restrictions. The ground water must have a known or projected point of entry to surface water with no statistically significant increases in contaminant concentration in the surface water, or at any point where there is reason to believe accumulation of constituents may occur downstream. In addition, the remedial action must include enforceable measures that will preclude human exposure to the contaminated ground water at any point between the facility boundary and all known and projected points of entry of such ground water into surface water.

The Superfund program will usually consider several different alternative restoration time periods and methodologies to achieve the preliminary remediation goal and select the most appropriate option (including the final remediation goal) by balancing trade-offs of long-term effectiveness, reductions of toxicity, mobility, or volume through treatment, short-term effectiveness, implementability, and cost.

For Class III ground water (i.e., ground water that is unsuitable for human consumption -- due to high salinity or widespread contamination that is not related to a specific contamination source -- and that does not have the potential to affect drinkable or environmentally significant ground water), drinking water standards are not ARAR and will not be used to determine preliminary remediation goals. Remediation timeframes will be developed based on the specific site conditions. The beneficial use of the ground water (e.g., agricultural or industrial use), if any, is determined; and the remediation approach will be tailored for returning the ground water to that designated use. Environmental receptors and systems may well determine the necessity and extent of ground-water remediation. In general, alternatives for Class III ground waters will be relatively limited and the focus may be, for example, on preventing adverse spread of the significant contamination or source control to prevent exposure to waste materials or contamination.

Widespread contamination due to multiple sources is handled in a special way by the Superfund program. At most NPL sites, program policy is to determine contributors to the aquifer contamination, and involve them in the overall response action. EPA will take the lead role in managing the overall response if the NPL site is the primary contributor to the multiple-source problem. In the case of areawide ground-water contamination caused by multiple sources, Superfund participation in the overall ground-water remediation will be proportionate to the contribution the NPL site(s) makes to the area wide problem, to the extent it can be determined. EPA may also take any action necessary to protect human health and the environment, such as providing alternate water supplies or wellhead treatment, if there is a threat to human health and the environment.

Response to comments: The use of the Ground-Water Protection Strategy as a framework for Superfund ground-water response actions was the subject of many comments. Some commenters stated that the use of the strategy, and the Guidelines for Ground-Water Classification that support the strategy, was ill-advised and possibly illegal. Others supported the use of the strategy and classification guidelines, and a third group supported their use, provided site-specific decision-making concerning appropriate remediation was maintained. In response, part of the strategy is a scheme for classifying ground waters according to their beneficial uses. The Superfund program uses this scheme as a framework to help decide the level of remediation that is appropriate for that ground water. For the most highly valued uses, such as drinking water, the most rapid remediation will be employed, to the extent practicable. Ground water that is naturally unusable because of characteristics such as high salinity may not be actively remediated.

Commenters questioning or objecting to the use of the Guidelines for Ground-Water Classification noted that the guidelines have not received adequate notice and comment for rulemaking and have not been formally promulgated. One of those commenters stated that the proposed NCP improperly makes the Ground-Water Protection Strategy into a "super ARAR." EPA disagrees that either the Ground-Water Protection Strategy or the Guidelines for Ground-Water Classification are an ARAR. The strategy provides overarching guidance that EPA considers in deciding how best to protect human health and critical environmental systems threatened by contaminated ground water. EPA developed guidelines, consistent with the strategy, as guidance to apply the classification system. The guidelines are used by the Superfund program as guidance to help make decisions on the level of cleanup necessary for ground water at Superfund sites. The guidelines are not used as strict requirements.

As noted above, the strategy, and the guidelines that help implement the strategy, are not ARARs. Rather, they help define situations for which standards may be applicable or relevant and appropriate and help set goals for ground-water remediation. At every site, EPA must decide the appropriate level of remediation necessary to protect human health and the environment and determine what requirements are ARARs based on the beneficial use of the ground water and specific conditions of the site. The guidelines are not a means of circumventing the selection of a remedy that will protect human health and the environment; they are only tools to apply the ground-water strategy. Site-specific decisions will need to be justified in the proposed plan and the public will have an opportunity to comment on EPA's findings and proposed actions at that time.

One commenter said that the use of a ground-water classification system would inappropriately insert cost into cleanup decisions. EPA disagrees. The cost of remediation does not affect the determination of the highest beneficial use of the ground water and consequently does not affect the classification. However, all remedies must be cost-effective, which may affect the effort exerted to achieve the remediation goals in a shorter timeframe. A commenter requested that EPA include cost as an explicit factor in determining when aggressive measures will be used to address ground-water contamination. EPA believes this is unnecessary. Cost-effectiveness is sufficiently addressed through the determination that remedies, including ground-water actions, are cost-effective.

One commenter opposed the classification guidelines stating that the use of the guidelines is to argue against restoring Class

III ground waters. Unfortunately, EPA has a limited budget to cleanup the many sites for which it has responsibility. Because Class III ground waters already contain high levels of salinity, hardness, or other chemicals; have no beneficial use to humans or environmental ecosystems; and have a low degree of interconnection with Class I or II ground waters (i.e., neither humans nor the environment are threatened by contamination in these ground waters), EPA believes that scarce resources can better be spent cleaning up sites and ground waters that do pose a threat to human health and the environment. Several commenters supported the use of the differential ground-water protection and noted that CERCLA section 121(d)(2)(B)(i) refers to "the designated or potential use" of the ground water in determining cleanup levels, reflecting Congress' intent to apply varying cleanup standards to different kinds of ground water.

Several commenters, while supporting EPA's position that remediation levels for ground water will depend on the beneficial use of the ground waters, expressed concern about the implementation of the ground-water guidelines. Several commenters said that ground-water classification should only be done by the states (which for these purposes includes federally recognized Indian tribes or local governments). Another commenter stated that classification by a state should supersede EPA's classification of ground water unless EPA's classification would require a more stringent cleanup. EPA basically agrees; and to the degree that the state or local governments have classified their ground water, EPA will consider these classifications and their applicability to the selection of an appropriate remedy.

EPA will make use of state classifications when determining appropriate remediation approaches for ground water. When EPA must classify ground water for a Superfund action, that classification is only used to determine the scope of site-specific remedial actions and has no bearing outside of the Superfund action. It is not used by Superfund to provide regional classification of ground waters. Classification of ground waters is only done to the extent it guides remedy selection.

If a state classification would lead to a less stringent solution than the EPA classification scheme, then the remediation goals will generally be based on EPA classification. Superfund remedies must be protective. If the use of state classification would result in the selection of a nonprotective remedy, EPA would not follow the state scheme.

Two commenters argued that ground-water classification and remediation decisions should be based on current uses of the ground water, not just ground-water characteristics (i.e., potential use of the ground water). EPA disagrees. It is EPA policy to consider the beneficial use of the water and to protect against current and future exposures. Ground water is a valuable resource and should be protected and restored if necessary and practicable. Ground water that is not currently used may be a drinking water supply in the future.

Another major focus of comments was the issue of whether natural attenuation was an appropriate method for dealing with ground-water contamination. The comments reflect two points of view: one that supports natural attenuation as a reasonable and cost-effective means of remediating contaminated ground water and another that believes natural attenuation is an inadequate method of cleanup.

Those commenters supportive of the use of natural attenuation as a method of addressing ground water recognize that ground-water extraction and treatment ("pump and treat") is generally the most effective method of reducing concentrations of highly contaminated ground water, but note that pump and treat systems are less effective in further reducing low levels of contamination to achieve remediation goals. These commenters suggest that natural attenuation may play a vital role in achieving the final increment of cleanup once pump and treat systems reach the point of diminishing returns. EPA agrees with the understanding reflected in these comments that active ground-water restoration may not always be able to achieve the final increment of cleanup in a timeframe that is reasonable. It is in recognition of the possible limitations on the effectiveness of pump and treat systems that EPA's approach provides for periodic evaluation of such systems and allows for the use of natural attenuation to complete cleanup actions in some circumstances. In some cases, proposed ground-water remediation goals may not be achievable. In these cases, it will be appropriate to modify the remediation goal to reflect limitations of the response action.

Several commenters suggested that EPA use institutional controls and natural attenuation to address ground-water contamination where human exposure to contaminated ground water is not currently occurring but potentially may occur. One commenter suggested that, in this situation, all ground-water remedies should be compared with natural attenuation. In response, during the analysis of remedial alternatives and remedy selection, EPA considers the current and potential use of the ground water. Natural attenuation is generally recommended only when active restoration is not practicable, cost-effective or warranted because of site-specific conditions (e.g., Class III ground water or ground water which is unlikely to be used in the foreseeable future and therefore can be remediated over an extended period of time) or where natural attenuation is expected to reduce the concentration of contaminants in the ground water to the remediation goals -- levels determined to be protective of human health and sensitive ecological environments -- in a reasonable timeframe. Further, in situations where there would be little likelihood of exposure due to the remoteness of the site, alternate points of compliance may be considered, provided contamination in the aquifer is controlled from further migration. The selection of natural attenuation by EPA does not mean that the ground water has been written off and not cleaned up but rather that biodegradation, dispersion, dilution, and adsorption will effectively reduce contaminants in the ground water to concentrations protective of human health in a timeframe comparable to that which could be achieved through active restoration. Institutional controls may be necessary to ensure that such ground waters are not used before levels protective of human health are reached.

Commenters opposed to natural attenuation do not find this method an acceptable substitute for treatment, noting that many contaminants at Superfund sites are not readily degraded in the subsurface. EPA agrees that natural attenuation will not provide contaminant reduction in all cases and that in many situations natural attenuation will not be appropriate as the sole remedial action. Factors that affect the ability of natural attenuation to effectively reduce contaminant concentrations include the biological and chemical degradability of the contaminants, the physical and chemical characteristics of the ground water, and physical characteristics of the geological medium.

In addition to objecting to the use of natural attenuation, some commenters provided specific examples of where they would consider rapid restoration of ground water to be necessary, such as water that feeds into, or that is interconnected with, sensitive or vulnerable aquatic ecosystems or where contaminated ground water results in vapors that impact nearby buildings. Under current policy, EPA determines remediation timeframes that are reasonable given particular site circumstances. Some "ecologically vital" ground water that feeds into or is interconnected with sensitive or vulnerable aquatic ecosystems is treated as a Class I ground water and actively restored, to the extent practicable. In addition, ground waters in designated wellhead protection areas are also to be treated as Class I ground waters and will be rapidly restored, to the extent practicable. Contamination of buildings due to soil vapors from ground water will be addressed on a site-specific basis and, if determined to be a continuing source of contamination, contaminated ground water will be actively restored, to the extent practicable. In contrast, such factors as location, proximity to population, and likelihood of exposure may allow much more extended timeframes for remediating ground water.

One commenter felt that more realistic assumptions and models were needed to calculate restoration times. The commenter believes EPA uses unrealistic and unproven models that result in overly optimistic estimates of restoration timeframes. Another commenter requested clarification on the technical feasibility of active ground-water restoration.

In response, EPA notes that it is engaged in ongoing research and evaluation of the effectiveness of ground-water pump and treat systems. This analysis has confirmed the effectiveness of plume containment measures in preventing further migration and of pump and treat systems in achieving significant reductions of ground-water contamination. "Evaluation of Ground-Water Extraction Remedies," EPA No. 540.2-89 (October 1989). However, this analysis also indicates the significant uncertainty involved in predicting the ultimate effectiveness of ground-water pump and treat systems. In many cases, this uncertainty warrants inclusion of contingencies in remedy selection decisions for contaminated ground water. Where uncertainty is great, a phased approach to remediation may be most appropriate. Such phasing might involve initial measures to contain the contaminant plume followed by operation of a pump and treat system to initiate contaminant removal from the ground water and to gain a better understanding of the ground-water system at the site. The decision as to the ultimate remediation achievable in the ground water would be made on the basis of an evaluation of the effectiveness of the pump and treat system conducted after a defined period of time. EPA's "Guidance on Remedial Action for Contaminated Ground Water at Superfund Sites" (December 1988) discusses factors that may be considered in establishing restoration timeframes.

To reflect the fact that restoration of ground water to beneficial use may not be practicable, the expectation from the preamble to the proposal that will be incorporated in today's rule has been modified. The expectation concerning ground-water remediation now indicates that when ground-water restoration is not practicable, remedial action will focus on plume containment to prevent contaminant migration and further contamination of the ground water, prevention of exposures, and evaluation of further risk reduction.

Another commenter contends that language in the preamble to the proposed rule creates the impression that active restoration is not practicable in fractured bedrock aquifers, which they stated was technically incorrect and inaccurately reflects other work in progress within EPA. EPA is clarifying that all of the factors listed as potentially making active ground-water restoration impracticable, including the existence of fractured bedrock or Karst formations, widespread plumes from non-point sources, particular contaminants (e.g., dense non-aqueous phase liquids), and physicochemical limitations (e.g., interactions between contaminants and aquifer material), are only examples of situations that may make active ground-water restoration difficult or impracticable. The presence of any of these situations does not mean that active restoration of ground water is presumptively impracticable and should not be considered; the decision of what ground water is or is not practicable to restore should be made on a site-specific basis.

Final rule: There is no rule language on this issue.

SECTION 300.435. Remedial design/remedial action, operation and maintenance.

Name: Section 300.435(b)(1). Environmental samples during RD/RA.

Proposed rule: The proposed remedial design/remedial action (RD/RA) section did not discuss QA/QC requirements for chemical and analytical testing and sampling procedures associated with samples taken during the RD/RA for the purpose of determining whether cleanup action levels, as specified in the ROD, are achieved.

Discussion: Sampling and analysis plans prepared during the RI/FS are required, under final § 300.430(b)(8), to follow a process ensuring that data of sufficient quality and quantity is obtained, and that such sampling and analysis plans be reviewed and approved by EPA. In order to encourage consistency between the QA/QC of the sampling data generated during the RI/FS which is relied upon when determining cleanup action levels in the ROD, and confirmatory sampling data used to ensure that cleanup action levels are met during the RD/RA, EPA has decided that the QA/QC requirements for cleanup action level samples under the RI/FS generally should also apply to those taken during the RD/RA.

Final rule: The following section is added to the final rule in § 300.435(b)(1) to encourage consistency between the QA/QC of RI/FS and RD/RA samples taken for the purpose of cleanup action levels:

> Those portions of RD/RA sampling and analysis plans describing the QA/QC requirements for chemical and analytical testing and sampling procedures of samples taken for the purpose of determining whether cleanup action levels specified in the ROD are achieved, generally will be consistent with the requirements of § 300.430(b)(8).

Name: Section 300.435(d). Contractor conflict of interest.

Proposed rule: EPA proposed new § 300.435(d) on contractor conflict of interest for RD/RA and O&M activities which are Fund-financed. It states that potential contractors will be required to provide information on their status and on the status of their parent companies, affiliates, and subcontractors as potentially responsible parties at the site, and that all such information must be provided and disclosed before, and after (if so discovered) submission of their bid or proposal or contract award. It further provides that the lead agency should evaluate the information prior to contract award and determine that either: (1) no conflict of interest exists which would affect their performance; or (2) a conflict of interest exists which prevents them from serving the best interests of the state or federal government. If such a conflict of interest exists, the offeror or bidder may be declared to be a "nonresponsible" or "ineligible" offeror or bidder in accordance with appropriate acquisition regulations and the contract may be awarded to the next eligible offeror or bidder. The preamble to the proposed rule noted that the lead agency may opt for actions less severe than denial of the contract award for situations in which the contractor's role at the site has been very minor or is not yet determined (53 FR 51453).

In the enforcement context, PRPs may undertake remedial actions under consent decrees or court orders, and EPA commits significant oversight dollars to such actions to ensure that the inherent conflict of interest does not affect the proper conduct of the remedial action. By contrast, in Fund-financed situations, EPA does not, as a routine measure, commit significant dollars for oversight. This provision would alert EPA to potential conflict of interest situations at Fund-lead sites, and allows EPA to decide if it is cost-effective to award the contract and provide additional oversight.

Response to comments: A few commenters requested that EPA provide more detailed guidance on the circumstances under which a contractor would be determined nonresponsible or ineligible. One commenter believed that EPA did not intend the proposed regulation to be read so restrictively as to result in an automatic determination of being "nonresponsible", and requested additional guidance regarding the circumstances under which a contractor's status as a PRP is considered likely to affect contract performance. The commenter argued that EPA has not stated in the proposal why status as a PRP necessarily raises a conflict of interest as defined in the federal acquisition regulations (FAR). A few commenters recognized that a potential for conflict of interest might exist if a PRP selects a remedy for a site, or possibly if a design were conducted by a PRP. However, for situations involving implementation of a chosen remedy, these commenters felt it was unlikely that such conflict of interest would occur, and requested a detailed discussion of how a construction contractor's objectivity would be affected by its status as a PRP. A commenter noted that EPA might err on the side of an automatic exclusion of a contractor from conducting the remedial action if such detailed discussion is not provided in the preamble or final rule; such actions would thus significantly reduce competition for Superfund contracts and consequently increase costs.

Another commenter felt that implementation of oversight by the lead agency would alleviate EPA's concerns that the contractor would not serve the government's best interests. The commenter also noted that EPA should apply the rule only prospectively, in order to avoid problems associated with disqualifying a contractor who is already undertaking work.

EPA agrees that it does not intend the proposed regulation to be read so restrictively as to result in automatic determinations of a PRP being considered "nonresponsible" or "ineligible". However, EPA's use of contractors with conflicts of interest in the Superfund program has been a major issue of concern over the past several years. After a review of existing EPA policies and procedures covering the Superfund contracting program along with interviews with both internal and external parties having knowledge of EPA's administrative procedures regarding conflict of interest, § 300.435(d) was proposed because it was determined that EPA's procedures for this issue need strengthening in order to avoid conflicts in the future.

EPA is concerned with hiring contractors (or their subcontractors) to implement remedial actions under those situations where a significant potential exists that such activity could significantly affect the success of the lead agency's ongoing or potential cost recovery or litigation efforts, or significantly impact the contractor's own liabilities. For example, actions such as the gathering, uncovering or documentation of evidence might be a standard task of a remedial action contractor at sites with potential for cost recovery. Contractors or subcontractors with conflicts of interest might not be completely objective or impartial when performing this work if evidence with unfavorable ramifications towards the contractor was encountered. Contractors or subcontractors with conflicts might also be tempted to recommend cost-saving measures that are not environmentally protective, in order to lower their potential cost share.

The lead agency usually conducts oversight of PRP-lead RD/RA projects in order to ensure that the RD/RA effort is proceeding in a manner which assures compliance with the requirements of the applicable record of decision and enforcement order or decree. However, at Fund-lead sites, EPA does not routinely engage in the level of scrutiny that may be necessary to prevent (or discover) actions motivated by the liability interests of the contractor. Thus, at a minimum, EPA needs to discover conflicts of interest that may warrant additional scrutiny; accordingly, disclosure requirements are necessary for Fund-lead projects.

In some cases, EPA may decide that even though a conflict of interest with a potential contractor or PRP exists, other considerations may justify its selection as a governmental contractor. Examples of such considerations include the uniqueness of site conditions, remedy, or the PRP's prior involvement at the site, the limited extent of potential liability of the contractor (or affiliate), or situations involving a significant potential for decreased competition or cost savings to the government (for example, if the contractor were the best offeror). In these situations, the lead agency might try to find an approach to mitigate such circumstances, ask offerors to list conflicts as well as their proposed steps they would take to lessen the conflict, or increase the level of oversight normally associated with that activity. In other cases, however, the lead agency might decide that the nature of the conflict overrides the potential benefits which could be realized by use of such contractors, and that governmental oversight might not successfully address this concern. The lead agency will evaluate each situation on a case-by-case basis through the careful exercise of judgement and the weighing of a variety of factors based on the specifics of the situation being reviewed.

In making and implementing these decisions under direct federal procurement, federal agencies are required to comply with the procedures set out in the applicable federal acquisition regulations. See FAR 9.507. EPA acquisitions are governed by 48 CFR 1509.507, which are consistent with the FAR. State procurements should follow the applicable state acquisition regulations in making and implementing these decisions; these regulations should be consistent with the applicable federal regulations.

EPA also does not agree that the lead agency should apply this section of the rule prospectively only. The same risks that exist from prospective contracts exist with regard to contracts underway. EPA, other federal agencies and state contracting officers should review existing remedial action contracts and determine whether the requirements set forth in this regulation are provided for in those contracts. Where it is determined to be appropriate, these government agency contracting officers should modify existing remedial action contracts to ensure that contractors already undertaking federally funded work will be required to submit information under this section regarding any potential conflicts of interest. If EPA determines that a conflict does exist, the agency will decide on a case-by-case basis what action is appropriate.

Final rule: Proposed § 300.435(d) is revised as follows to better define the circumstances under which the lead agency would determine whether a conflict of interest would exist, and to more accurately reflect possible EPA actions in response to such a finding:

> (d) Contractor conflict of interest. (1) For Fund-financed RD/RA and O&M activities, the lead agency shall:
>
> (i) Include appropriate language in the solicitation requiring potential prime contractors to submit information on their status, as well as the status of their

subcontractors, parent companies, and affiliates, as potentially responsible parties at the site.

(ii) Require potential prime contractors to certify that, to the best of their knowledge, they and their potential subcontractors, parent companies, and affiliates have disclosed all information described in § 300.435(d)(1)(i) or that no such information exists, and that any such information discovered after submission of their bid or proposal or contract award will be disclosed immediately.

(2) Prior to contract award, the lead agency shall evaluate the information provided by the potential prime contractors and:

(i) Determine whether they have conflicts of interest that could significantly impact the performance of the contract or the liability of potential prime contractors or subcontractors.

(ii) If a potential prime contractor or subcontractor has a conflict of interest that cannot be avoided or otherwise resolved, and using that potential prime contractor or subcontractor to conduct RD/RA or O&M work under a Fund-financed action would not be in the best interests of the state or federal government, an offer or bid contemplating use of that prime contractor or subcontractor may be declared nonresponsible or ineligible for award in accordance with appropriate acquisition regulations, and the contract may be awarded to the next eligible offeror or bidder.

Name: Sections 300.5 and 300.435(f). Operation and maintenance.

Proposed rule. EPA proposed a new section that discusses operation and maintenance (O&M), the final step in the remedial process. Proposed § 300.435(f) stated that for remedial actions which use treatment or other measures to restore ground or surface waters, the operation of such facilities until a level protective of human health or the environment is achieved, or for up to 10 years after construction/start-up, whichever is earlier, will be considered part of the remedial action. EPA pays up to a 90 percent cost share for remedial action; activities necessary after this period would be considered operation and maintenance (O&M) under § 300.435(f)(2) of the proposed rule, and CERCLA section 104(c)(6).

Proposed § 300.435(f)(3)(renumbered as final § 300.435(f)(4)) made clear that the following would not be considered necessary measures to restore contaminated ground or surface water, and thus would not be eligible for up to 10 years cost-share: "(i) Source control measures initiated to prevent contamination of ground or surface waters; and (ii) Ground or surface water measures initiated for the primary purpose of providing a drinking water supply, not for the purpose of restoring ground water." Proposed § 300.435(f)(4)(revised and renumbered as final § 300.435(f)(3)) then noted that "The 10-year period will begin once the ROD has been signed, construction activities have been completed, and the remedy is operational and functional."

Response to comments: EPA received several comments raising concerns with the proposed rule. Since most commenters were concerned with particular sub-components of this issue, EPA will respond separately to issues on each sub-component. Revisions to proposed §§ 300.5 and 300.435(f) will be discussed at the end of this sections.

1. Source control maintenance measures. Several commenters argued that EPA has misinterpreted Congress's intent and does not have statutory authority in excluding source control maintenance measures from federal funding through the cost-sharing provisions for remedial actions. Some felt that Congress intended that source control maintenance measures (e.g., landfill cap maintenance and leachate collection and treatment) should be considered necessary to the proper functioning of measures restoring ground-water quality (e.g., ground-water pump/treat), and thus should be included within the coverage of CERCLA section 104(c)(6). These commenters reason that if source control maintenance measures are not operated, no restoration would occur, the protection of public health would not be assured, and water quality would not improve. Several commenters also argued that excluding "source control measures" is much too broad and requires clarification and examples, and stated that the example used in the proposed rule describing leachate control systems for containment units (53 FR 51453-54) exemplifies ground water restoration as well as source control. Another felt that the only example of a source control measure which would have operation and maintenance costs fully funded by the states would be a leachate collection system as found in a RCRA Subtitle C landfill.

In response, EPA has decided as a matter of policy not to fund the operation and maintenance of source control measures (e.g., landfill cap maintenance, leachate collection/treatment, gas collection/treatment) once such measures become operational and functional. EPA believes that source control maintenance measures should be treated like other O&M activities under CERCLA section 104(c)(6)(see preamble discussion on § 300.510(c)(1) below).

As a threshold matter, it is important to note that EPA will continue to fund the construction of the source control measures themselves (e.g., construction of the landfill cap or leachate collection system). As EPA noted in the preamble to the proposed

NCP, EPA intends to pay up to a 90 percent Fund share for all source control measures until "completion of construction of a source control system, and ... the system is operational and functioning properly" (53 FR 51454). After that point, when the system is simply being maintained and the contamination from the source is being controlled, the O&M phase begins for these measures, and EPA believes that it would be inappropriate for the Fund to continue to pay for such activities.

Congress made clear in CERCLA section 104(c)(6) that certain ground or surface water restoration actions would be considered "remedial action" (such that, under EPA policy, EPA would pay up to a 90 percent cost share) as compared to "O&M" (for which the states pay all costs under a long-standing EPA policy). EPA has determined that although a failure to perform source control maintenance could result in some new contamination of ground or surface water, maintenance measures are not specific restoration actions and do not come within the category of remedial measures "necessary to restore ground or surface water" as used in section 104(c)(6). Rather, they fall within the category of normal operation and maintenance activities.

Congress was specifically concerned with including within the idea of "remedial action" (and thereby within the group of actions funded at up to a 90 percent level by EPA), those measures that actively cleanup ground and surface water. In a discussion of the issue, the Senate Committee on Environment and Public Works noted that EPA was paying up to a 90 percent cost share for most active remediation efforts, such as drum removals and soil clean up, but did not comparably share in the cost of ground or surface water cleanup:

> The Committee felt that it was important to specify what the financial obligation of the Superfund is in regard to the cleanup of ground and surface water contamination at sites on the National Priority List. The current practice of the [EPA] is to finance remedial action activities such as the removal of drums, excavation of soil, and initial treatment of ground and surface waters on the 90/10 basis provided in section 104(c)(3). Under this policy, the long-term treatment of contaminated water becomes a state responsibility one year after all other remedial actions are completed. The continued treatment of contaminated water, which is in actuality a major part of the cleanup program, is considered by EPA to be an operation and maintenance cost.

S.Rep. 11, 99th Cong., 1st Sess. at 20-21 (1985), and S.Rep. 631, 98th Cong., 2d Sess. at 9 (1984). (Emphasis added.)

In order to distinguish between active cleanup ("remedial") actions and O&M, Congress specified in section 104(c)(6) that remedial actions would include those measures that are necessary to restore ground and surface water to "a level that assures protection of human health and the environment." By contrast, the statute provides that "[a]ctivities required to maintain the effectiveness of such measures ... shall be considered operation or maintenance."

This distinction flows directly from the concern, expressed by the Senate Environment Committee, that the dividing line between remedial and O&M actions, for the purposes of cost share funding, should be achieving protective levels:

> This distinction between remedial action and operation and maintenance should be based on the degree of cleanup that has been achieved. This section determines that the cleanup of ground and surface water, whether on or off-site, is a remedial action until the protection of human health and the environment is assured....

Id. Thus, Congress appears to have contemplated that active measures necessary to clean up (or restore) a water body (e.g., the pumping and treating of groundwater) would be considered to be remedial action, but O&M to maintain that remedy would not.

However, at the same time, Congress was sensitive to EPA's concern that too broad a policy would require EPA to set aside large amounts of Superfund money for water treatment measures, thereby limiting EPA's ability to take other response actions. As the Senate reports noted, "[t]he reported bill addresses this concern by putting a five-year [later changed to a 10-year] time limit on the mandatory involvement of the federal fund in such treatment expenses." Id. Thus, the section requires EPA to consider active restoration measures to be remedial action until protective levels have been achieved, or for a period of 10 years after construction and commencement of operation, whichever is earlier.

For example, under section 104(c)(6), if EPA were to achieve protective levels (e.g., MCLs) after 6 years of ground-water treatment, then the "remedial" action phase would be considered complete and the ground water restored, and activities over the next 4 years (and thereafter) to maintain the effectiveness of that remedy would be considered to be O&M. However, these O&M activities might well include maintenance of the cap on a landfill above the aquifer, or continued operation of the landfill's leachate collection system. Because these source control maintenance activities would merely "maintain the effectiveness of the restoration" -- and not be necessary to achieve the remedial action objectives and remediation goals in the ROD -- they are clearly the types of measures that are not "necessary" to restore the aquifer even though if they were not performed, some degradation of the aquifer might occur. These measures are O&M activities, and will be funded by the state.

If, as the commenters suggest, EPA considered source control maintenance and other O&M activities performed during the period of active restoration to be remedial action "necessary" to restore the aquifer (on the theory that if the O&M were not performed, the aquifer could become degraded), then EPA would also be compelled to consider O&M to be remedial action during the period after protectiveness levels have been reached (if less than 10 years after construction). Such an interpretation would directly conflict with the language and legislative history of section 104(c)(6) that ends the remedial action stage when protective levels are achieved or in 10 years.

The commenters' interpretation would also lead to a situation where virtually all on-site O&M activities could be characterized as "remedial action" under section 104(c)(6), on the theory that if they were not maintained, they might degrade the ground/surface water; again, the legislative history (and the wording of section 104(c)(6)) do not suggest that this was Congress' intention.

EPA's analysis is also supported by the common sense notion that once a landfill leachate collection system has been constructed and is operational, the releases have been controlled and the remedial action phase completed; ongoing operation of the leachate control and cap maintenance would merely be necessary to maintain that status quo. EPA further believes that this position is consistent with the need to balance demands on the Fund.

The record of decision for each operable unit of a site's remedy should clearly differentiate, where applicable, which remedial action components will serve the function of "source control maintenance" measures as compared to "restoration" measures. Source control maintenance, in particular, includes maintenance of caps, flood/erosion control measures, slurry walls, gas and leachate collection/treatment measures, and ground/surface water interception/diversion measures. In addition, source control maintenance measures include those leachate collection/treatment measures which function: (1) within a containment unit, (2) within a source, or (3) immediately downgradient and adjacent to a source, and which serve to collect leachate from a source. In contrast, "source control action" is generally considered to include the construction or installation and start-up -- as compared to maintenance -- of those actions necessary to prevent the continued "release" of hazardous substances or pollutants or contaminants into the environment from a source (generally on top of or within the ground, or in buildings or other structures on the site).

2. Measures whose primary purpose is to provide drinking water. Several commenters argued that EPA has misinterpreted Congress's intent, and does not have statutory authority, in excluding from federal funding through the cost-sharing provisions for remedial actions, ground/surface water measures for the primary purpose of providing drinking water. Several commenters argue that CERCLA section 104(c)(6) does not exclude coverage since this section provides 10-year cost share for "the completion of treatment or other measures... necessary to restore ground or surface water to a level which assures protection of human health and the environment." They argue that 10-year cost-share is warranted since, if measures for providing drinking water are not operated, no restoration would occur, the protection of public health would not be assured, and water quality would not improve. Some commenters claim that such a requirement would unfairly burden small communities/states which would have to pick up the cost of treating contaminated water and/or charge a high user fee for the use of treated water. One commenter believed that O&M funding should be extended on a case-by-case basis where drinking water is provided and the release at the source is controlled, but contaminant levels cannot be cost-effectively contained.

EPA has decided as a matter of policy not to fund the operation and maintenance of ground/surface water measures taken for the primary purpose of supplying drinking water. Section 104(c)(6) defines as "remedial" action (subject to up to a 90 percent EPA cost share) measures necessary to restore ground or surface water. Providing drinking water is simply not "necessary" for restoration. EPA recognizes that pumping and treating groundwater to primarily provide drinking water might, over time, tend to encourage recharge of the aquifer and could result in some localized improvement in ground or surface water quality; however, the effect is at best tangential to, not necessary for, restoration.

Moreover, EPA believes that the Superfund program was neither designed nor intended to provide drinking water to local residents over the long-term; providing drinking water generally is the responsibility of state and local governments and utilities. CERCLA often does provide drinking water on a temporary basis (e.g., bottled water) or construct drinking water facilities (e.g., water line extensions or treatment plants) in order to provide alternative water supplies; however, EPA does not believe that it is the purpose of the federal government under Superfund authority to fund the long-term operation and maintenance of a public works project such as a drinking water treatment system. EPA believes that this position is consistent with use of the Fund to implement the clear mandates of CERCLA.

The commenter suggests that if EPA does not provide the 10-year cost share for measures taken for the purpose of providing drinking water, no restoration will occur, and protection of human health will not be assured. EPA disagrees. First, if the ground or surface water is contaminated by a release under CERCLA, EPA may decide to take action with the primary purpose of restoring that aquifer (in which case the cost share would be provided). Second, if the state and locality believe that ground or surface water should be treated for the primary purpose of providing drinking water, such measures may be carried out by the state or locality itself or by the local utility. As noted above, Superfund was not intended to be a public works program.

The ROD for each operable unit of a site's remedy, where applicable, should clearly differentiate which remedial action components are "treatment or other measures initiated for the primary purpose of supplying drinking water" versus treatment or other measures "necessary for restoration." These RODs should clearly justify why a remedial action to restore a contaminated aquifer is or is not determined to be appropriate, and/or why the cost-effective selected alternative is to supply drinking water after treatment or other measures. These decisions must follow the NCP requirements involving the development, screening, and analysis of remedial alternatives, as well as NCP remedy selection procedures.

3. Temporary or interim measures. One commenter argued that in situations where a ROD for an operable unit identifies an action as temporary or non-final in anticipation of a subsequent final remedy, interim maintenance should not be considered O&M.

EPA has determined that, in certain cases, an interim or temporary response action is both necessary and desirable in order to control or prevent the further spread of contamination while EPA is deciding upon a final remedy for the site. Indeed, in many cases, a significant escalation of final restoration remedial action costs would result if such measures were not utilized prior to installation of the remedy for the source. Therefore, as a matter of policy, EPA will consider, in certain cases, such interim measures to be "remedial action" (eligible for 90 percent funding), even if the interim measures include source control maintenance activities. Such interim action would be conducted as an operable unit component of a remedial action.

However, this does not mean that all interim actions will be so funded. Where EPA selects a final remedy for an operable unit (e.g., a final, as compared to a temporary, landfill cap), then any maintenance activity for that site will be considered O&M. It is only where the action is truly temporary, meaning that EPA anticipates replacing it with a final measure later on, that the activity will be considered part of the remedial action. In effect, EPA considers these temporary stabilization actions to be a necessary part of the remedy. Unlike normal O&M activities, these actions are not intended to maintain the effectiveness of the remedy; they are intended to ensure that the site conditions do not significantly worsen while EPA develops a comprehensive final remedy. Such measures must be taken promptly in order to assure protection of human health and the environment.

4. Time at which a remedy becomes operational and functional. The time period for calculating when a remedial action begins for the purpose of CERCLA section 104(c)(6) is the point at which the remedy becomes operational and functional, and is the relevant point for starting the ten year period. In addition, for non-ground or surface water restoration remedies, O&M begins when the remedial action is operational and functional.

Several commenters requested clarification as to when a ground or surface water restoration remedy becomes "operational and functional" under proposed § 300.435(f)(4)(revised and renumbered as final § 300.435(f)(2) and (3)). One commenter felt that this determination is a matter of judgement with some remedies, and felt that a final inspection resulting in state and EPA concurrence on this determination was warranted. One commenter proposed that the period start when it is determined that the remedy works, has no start-up problems, and is performing as designed for a reasonable period of time, or either: (1) one year after construction is complete; or (2) after a reasonable start-up period after construction is complete (as defined through EPA/state SMOA, contract or agreement), whichever is longer, for each operable unit. This is referred to as the start-up period. Another commenter proposed that the period start when all parties (EPA, state, PRPs) agree that the remedy is operational and functional.

In response, under § 300.5, "operation and maintenance" means measures required to maintain the effectiveness of response actions. Except for ground or surface water restoration actions covered under § 300.435(f)(3), O&M measures are initiated after the remedy has achieved the remedial action objectives and remediation goals in the ROD or consent decree, and is determined to be operational and functional.

EPA generally agrees with the comments that a measure should be said to be operational and functional approximately one year after construction has been completed (see § 300.510(c)). EPA does not, however, agree that in a federal- or state-lead action, the lead agency should await the agreement of all parties, including PRPs, before making this finding. Thus, the final rule provides that a remedy becomes "operational and functional" either one year after construction is complete, or when the remedy is determined concurrently by EPA and the state to be functioning properly and is performing as designed, whichever is earlier. This timetable is consistent with EPA experience, and with the period of time used in construction grant regulations. See 40 CFR 35.2218(c).

However, EPA also agrees with the comment that in certain cases a remedy may not be fully operational after a year, i.e., such that it merely needs to be maintained or operated; thus, the state may request an EPA extension of the one year limit for project start-up. Where EPA determines that an extension of the start-up period is warranted, an extension would be granted. If the request is not approved, the remedy would be considered operational and functional one year after its construction, or on the date of the EPA/state determination that it is operational and functional, whichever is earlier.

Other sections of the NCP also discuss state involvement during and after remedial actions; specifically, § 300.510(c) discusses state assurances for assuming O&M responsibility, and § 300.515(g) discusses state involvement in remedial action. In order to more clearly describe EPA/state roles and coordination between construction completion and O&M, and to ensure consistency when applying EPA's existing policy for the administrative procedures required to bring sites into the O&M phase, the following process is described.

For Fund-financed remedial actions, the lead and support agencies should conduct a joint inspection at the conclusion of construction of the remedial action and concur through a joint memorandum that: (1) the remedy has been constructed in accordance with the ROD and with the remedial design, and (2) the start-up period should begin. At the end of the start-up period, the construction contractor or agency will prepare a remedial action report that the work was performed within desired specifications and is operational and functional. The lead and support agencies will then conduct a joint inspection in order to determine whether to accept the remedial action report.

5. When is ground or surface water considered "restored." One commenter requested clarification in the proposed regulation regarding when a surface or ground water is considered to have been fully restored.

Ground or surface water restoration is considered to be complete, for the purposes of CERCLA section 104(c)(6), when the remedial action has achieved protective levels as set in the ROD, or after 10 years, whichever is earlier. Of course, if protective levels have not been achieved by year 10, then it may be appropriate for the state to continue the operation of the treatment or other restoration measures until the ground or surface water is fully restored to levels set out in the ROD.

EPA recognizes, however, that performance of remedies for restoring ground or surface waters can often only be evaluated after the remedy has been implemented and monitored for a period of time. Further, some water treatment systems may prove unable to meet cleanup goals, and instead may merely reach the point at which it is determined that restoration to health based levels in contaminant concentrations in the ground or surface water is not practicable. In such cases, it may be necessary to amend the ROD and waive certain ground or surface water requirements. Alternatively, the RODs may contemplate, as a contingency, that it may not be technically practicable to meet the specified levels, and thus set out alternative measures to be taken under that contingency.

Performance evaluations should be conducted one to two years after the remedy is operational and functional, in order to determine whether modifications to the restoration action are necessary. More extensive performance evaluations should be conducted at least every five years. After evaluating whether cleanup levels have been, or will be, achieved in the desired time frame, the following options should be considered: (1) discontinue operation; (2) upgrade or replace the remedial action to achieve the original remedial action objectives or modified remedial action objectives; and/or (3) modify the remedial action objectives and continue remediation, if appropriate.

6. Who operates the restoration measures during 10-year period. One commenter noted that CERCLA is unclear on who will be responsible for operating the remedial action measures necessary during the restoration period of up to 10 years, and believed that EPA is responsible for implementing such measures for EPA-lead sites. Another commenter felt that states should decide whether they have the capability and/or interest in conducting operation and maintenance, and felt that taking over this O&M would be encouraged if federal cost-share for O&M for up to ten years is assured. One commenter argued that section 104(c)(3)(A) of CERCLA, which requires states to assure all future maintenance of the removal and remedial actions, means that the state will assume the responsibility for physically taking over the future maintenance, not assume the responsibility for all future maintenance costs.

In response, CERCLA section 104(c)(6) defines treatment and other measures to restore aquifers (for up to ten years) to be "remedial action," not O&M. Therefore, the costs of operating the remedial action will be shared by EPA and the state according to the appropriate cost sharing provisions in CERCLA section 104(c)(3). However, states are encouraged to conduct such action and may be funded through a cooperative agreement for that portion of remedial action required to restore ground or surface water to levels which assure protection of human health and the environment (or 10 years, whichever is earlier). Such management would include performing any necessary compliance or monitoring requirements. The state is further encouraged to provide necessary information to other environmental programs when such programs are interested in activities at a Superfund site (e.g., providing information on surface water discharges to the appropriate water office or agency).

Of course, after the restoration is considered "complete," a discussed above (at the latest, after 10 years), the restoration activities become O&M, and the states must assume responsibility for the management of the restoration activities, including the costs of that O&M. This is consistent with the long-standing policy that states are responsible for all O&M costs. (See preamble discussion below on "Sections 300.510(c)(1) and (2). State assurances.")

Final rule: Proposed §§ 300.5 and 300.435(f) are revised as follows:

1. EPA is revising the proposed rule's definition of "source control remedial action" and is adding a separate definition for "source control maintenance measures," as follows:

> "Source control action" is the construction or installation and start-up of those actions necessary to prevent the continued release of hazardous substances or pollutants or contaminants (primarily from a source on top of or within the ground, or in buildings or other structures) into the environment.
>
> "Source control maintenance measures" are those measures intended to maintain the effectiveness of source control actions once such actions are operating and functioning properly, such as the maintenance of landfill caps and leachate collection systems.

2. In § 300.5, the definition of "operation and maintenance" is changed to refer to "measures" rather than "activities," consistent with 40 CFR Part 35 Subpart O:

> "Operation and Maintenance" (O&M) means measures required to maintain the effectiveness of remedial response actions.

3. Section 300.435(f)(1) is revised as follows to clarify the point at O&M measures are initiated:

> Operation and maintenance (O&M) measures are initiated after the remedy has achieved the remedial action objectives and remediation goals in the ROD, and is determined to be operational and functional, except for ground or surface water restoration actions covered under § 300.435(f)(3). A state must provide its assurance to assume responsibility for O&M, including, where appropriate, requirements for maintaining institutional controls, under § 300.510(c).

4. A new § 300.435(f)(2) is added to explain the use of the term "operational and functional" in subsection (f)(1):

> A remedy becomes "operational and functional" either one year after construction is complete, or when the remedy is determined concurrently by the EPA and the state to be functioning properly and is performing as designed, whichever is earlier. EPA may grant extensions to the one-year period, as appropriate.

5. Proposed § 300.435(f)(2)(renumbered as final § 300.435(f)(3)) is revised to indicate that the restoration period begins after the remedy is operational and functional, consistent with the discussion of O&M measures in paragraph (f)(1). This section also defines administrative "completion." This revision also takes the place of proposed paragraph (f)(4).

> (3) For Fund-financed remedial actions involving treatment or other measures to restore ground or surface water quality to a level that assures protection of human health and the environment, the operation of such treatment or other measures for a period of up to 10 years after the remedy becomes operational and functional will be considered part of the remedial action. Activities required to maintain the effectiveness of such treatment or measures following the 10-year period, or after remedial action is complete, whichever is earlier, shall be considered O&M. For the purposes of federal funding provided under CERCLA section 104(c)(6), a restoration activity will be considered administratively "complete" when:
>
> (i) Measures restore ground or surface water quality to a level that assures protection of human health and the environment;
>
> (ii) Measures restore ground or surface water to such a point that reductions in contaminant concentrations are no longer significant; or
>
> (iii) Ten years have elapsed, whichever is earliest.

6. Because the final NCP includes a definition of "source control maintenance measures," proposed § 300.435(f)(3)(i) (renumbered as final § 300.435(f)(4)) is revised to add the term "measures" and to delete the phrase "initiated to prevent contamination of ground or surface water."

Name: **Notification prior to the out-of-state transfer of CERCLA wastes.**

Policy: In response to the concerns of a number of states and localities, EPA has initiated a policy that prior to the shipment of Superfund wastes to a permitted waste management facility out-of-state, the lead agency should provide written notice to that state's environmental officials. EPA believes that such notice may be appropriate, and that indeed, such notice may be helpful in facilitating the safe and timely accomplishment of Superfund waste shipments. Notice should be provided under this policy for all remedial actions and non-time-critical removal actions involving the out-of-state shipment of Superfund wastes that are known to the lead agency, including waste shipments arising from Fund-lead responses, state-lead responses, federal facility responses and responses conducted by PRPs (emergency and time-critical removals are not covered by this policy). This notification should specify the type and quantity of waste involved, the name and location of the receiving facility and the expected schedule for the transfer of the CERCLA waste. Such notification will enable the recipient state to obtain from its permitted facilities any other information it may need in order to support the out-of-state action. Although this notification is neither mandated by CERCLA nor required by this regulation, EPA believes that adherence to this procedure will help to ensure that these waste transfers occur in a safe and expedient manner. The policy is explained in more detail in OSWER Directive No. 9330.2-07 (September 14, 1989).

Because CERCLA actions may be carried out under a number of mechanisms and by a number of parties (e.g., lead state agencies, other federal agencies, PRPs), EPA plans to issue additional guidance or regulations, if appropriate, to implement this notification policy.

Final rule: There is no rule language on this issue.

APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Introduction

The November 20, 1985 revisions to the NCP required that, for all remedial actions, the selected remedy must attain or exceed the federal applicable or relevant and appropriate requirements (ARARs) in environmental and public health laws. It also required removal actions to attain ARARs to the greatest extent practicable, considering the exigencies of the circumstances. The preamble to the 1985 revisions to the NCP stated that ARARs could be determined only on a site-by-site basis, and it included from EPA's October 2, 1985 Compliance Policy a list of potentially applicable or relevant and appropriate requirements. The preamble also provided a list of federal non-promulgated criteria, advisories and guidance, and state standards "to be considered," called TBCs. EPA also provided five limited circumstances in which ARARs could be waived.

On October 17, 1986, CERCLA was reauthorized with additional new requirements. Section 121 of CERCLA requires that, for any hazardous substance that will remain on-site, remedial actions must attain requirements under federal environmental or state environmental or facility siting laws that are applicable or relevant and appropriate under the circumstances of the release or threatened release at the completion of the remedial action. The statute also retained most of the waivers, with a few additions.

Although section 121(d)(2) basically codified EPA's 1985 policy regarding compliance with other laws, the section also requires that state standards are also potential ARARs for CERCLA remedial actions when they are promulgated, more stringent than federal standards, and identified by the state in a timely manner.

Furthermore, the CERCLA amendments provide that federal water quality criteria established under the Clean Water Act (CWA) and maximum contaminant level goals (MCLGs) established under the Safe Drinking Water Act, must be attained when they are relevant and appropriate under the circumstances of the release.

Today's revision to the NCP continues the basic concept of compliance with ARARs for any remedy selected (unless a waiver is justified). ARARs will be determined based upon an analysis of which requirements are applicable or relevant and appropriate to the distinctive set of circumstances and actions contemplated at a specific site. Unlike the 1985 revisions to the NCP, where alternatives were developed based on their relative attainment of ARARs, in today's rule recognition is given to the fact that ARARs may differ depending on the specific actions and objectives of each alternative being considered (for more discussion of this point, see preamble of proposal at 53 FR 51438, section 9).

In today's rule, EPA retains its policy established in the 1985 NCP of requiring attainment of ARARs during the implementation of the remedial action (where an ARAR is pertinent to the action itself), as well as at the completion of the action, and when carrying out removal actions "to the extent practicable considering the exigencies of the situation."

For ease of identification, EPA divides ARARs into three categories: chemical-specific, location-specific, and action-specific, depending on whether the requirement is triggered by the presence or emission of a chemical, by a vulnerable or protected location, or by a particular action. (More discussion of these types can be found in the preamble of the proposal at 53 FR 51437, section 6).

Response to comments: EPA received a few comments on general ARARs policies. One commenter argued that the remedial action should not necessarily have to attain the most stringent applicable or relevant and appropriate requirement if a less stringent requirement provides adequate protection of human health and the environment.

EPA disagrees. CERCLA requires that remedial actions comply with all requirements that are applicable or relevant and appropriate. Therefore, a remedial action has to comply with the most stringent requirement that is ARAR to ensure that all ARARs are attained. In addition, CERCLA requires that the remedies selected be protective of human health and the environment and attain ARARs. A requirement does not have to be determined to be necessary to be protective in order to be an ARAR. Conversely, the degree of stringency of a requirement is not relevant to the determination of whether it is an ARAR at a site and must be attained (except for state ARARs).

Another commenter asked for confirmation that variance or exemption provisions in a regulation can be potential ARARs as well as the basic standards. EPA agrees that meeting the conditions and requirements associated with a variance or exemption provision can be a means of compliance with an ARAR. For example, EPA expects that CERCLA sites will frequently be complying with the terms of the treatability variance under the RCRA land disposal restrictions (LDR) for soil and debris when LDR is an ARAR.

Limitations in a regulation, such as the quantity limitations that define small quantity generators under RCRA and affect what requirements a generator must comply with, will also affect what requirements are applicable at a CERCLA site.

However, it is possible that a requirement could be relevant and appropriate even though the requirement is not applicable because of a limitation in the regulation.

Indian tribe commenters contended that ARARs should not be defined as promulgated laws, regulations, or requirements because some Indian tribe laws, which could apply to a Superfund cleanup, may not be promulgated in the same fashion as state or federal laws. CERCLA section 126 directs EPA to afford Indian tribes substantially the same treatment as states for certain specified subsections of CERCLA sections 103, 104 and 105; EPA believes, as a matter of policy, that it is similarly appropriate to treat Indian tribes as states for the purpose of identifying ARARs under section 121(d)(2). EPA realizes that tribal methods for promulgating laws may vary, so any evaluation of tribal ARARs will have to be made on a case-by-case basis. Tribal requirements, however, are still subject to the same eligibility criteria as states, as described in § 300.400(g)(4).

Another commenter disagreed with EPA's position that environmental laws do not apply to a CERCLA response action unless incorporated by CERCLA section 121(d). This commenter argued that EPA has confused the ARARs concept with one of preemption of state law.

In response, SARA established a process, in CERCLA sections 121(d)(2) and (d)(4), for how federal and state environmental laws should apply to on-site CERCLA remedial actions, i.e., the ARARs process. Based on these provisions, CERCLA remedies will incorporate (or waive) state standards, as appropriate under CERCLA. Thus, although other environmental laws do not independently apply to CERCLA response actions, the substantive requirements of such laws will be applied to such actions, consistent with such section 121(d) and NCP § 300.400(g).

EPA's interpretation that CERCLA response actions are required to meet state (and other federal) environmental law standards only to the limited degree set out in CERCLA is also necessary to comply with the special mandates in CERCLA to respond quickly to emergencies, and to perform Fund-balancing. The position that on-site CERCLA response actions are not independently subject to other federal or state environmental laws is a long-standing one, based on a theory of implied repeal or pre-emption. See, e.g., 50 FR 47912, 47917-18 (Nov. 20, 1985); 50 FR 5862, 5865 (Feb. 12, 1985); "CERCLA Compliance With Other Environmental Laws" Opinion Memorandum, Francis S. Blake, General Counsel, to Lee M. Thomas, Administrator, Nov. 22, 1985.

Following are summaries of major comments and EPA's responses on specific sections of the ARARs policy.

Name: Sections 300.5 and 300.400(g)(1). Definition of "applicable."

Proposed rule: "Applicable requirements" means those cleanup standards, standards of control, or other substantive environmental protection requirements, criteria, or limitations promulgated under federal or state law that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site. The preamble to the proposed rule pointed out that there is generally little discretion in determining whether the circumstances at a site match those specified in a requirement (53 FR 51435-37).

Response to comments: One commenter suggested that language used in 300.400(g)(4) of the proposed NCP which provides that "only those state standards that are promulgated and more stringent than federal requirements may be applicable or relevant and appropriate" be added to the definition of ARARs found in 300.5.

In response, EPA notes that the definition it proposed already includes the condition that standards, whether federal or state, must be promulgated in order to be potential ARARs. EPA accepts this comment on stringency and has revised both §§ 300.5 and 300.400(g) to specify that in order to be considered ARAR, state requirements must be more stringent than federal requirements. EPA notes that, in general, state regulations under federally authorized programs are considered federal requirements.

A commenter supported the discussion of ARARs in the preamble to the proposed NCP, but remarked that the definitions of ARARs do not adequately reflect many of the important aspects mentioned in the preamble. EPA believes that the definitions stated in the rule are sufficiently comprehensive and that the information contained in the preamble to the proposed and final rules will help the public in applying the definitions.

One commenter asked why EPA had deleted rule language that applicable requirements are those requirements that would be legally applicable if the response action were not undertaken pursuant to CERCLA. In working with this definition, EPA found the previous definition confusing because it was stated in the conditional, i.e., requirements that would apply if the action were not under CERCLA. EPA revised the definition to explain more specifically what it means by applicable requirements to avoid any confusion. However, the 1985 wording is still a correct statement of the applicability concept. EPA is modifying the definition, however, to make it clear that the standards, etc. do not have to be promulgated specifically to address CERCLA sites.

Final rule: The proposed definition of "applicable" in §§ 300.5 and § 300.400(g)(1) are revised as follows:

1. Consistent with the language in CERCLA section 121(d)(2), the description of federal and state laws in § 300.5 is revised to read: "...requirements, criteria or limitations promulgated under federal environmental or state environmental or facility siting law...." [Comparable changes are made in §§ 300.415(i), 300.430(e)(2)(i)(A), 300.430(e)(9)(iii)(B) and 300.430(f)(1)(ii)(C).]

2. The following sentence is added to § 300.5: "Only those state standards that are identified by a state in a timely manner and that are more stringent than federal requirements may be applicable."

3. In §§ 300.5 and 300.400(g)(1), the word "found" is added before "at a CERCLA site."

Name: Sections 300.5 and 300.400(g)(2). Definition of "relevant and appropriate."

Proposed rule: "Relevant and appropriate requirements" means those cleanup standards, standards of control, and other substantive environmental protection requirements, criteria, or limitations promulgated under federal or state law that, while not "applicable" to a hazardous substance, pollutant, contaminant, remedial action, location, or circumstance at a CERCLA site, address problems or situations sufficiently similar to those encountered at the CERCLA site that their use is well suited to the particular site.

Section 300.400(g)(2) identified criteria that must be considered, where pertinent, to determine whether a requirement addresses problems or situations that are sufficiently similar to the circumstances of the release or remedial action that it is relevant and appropriate. The preamble to the proposed rule emphasized that a requirement must be both relevant and appropriate; this determination is based on best professional judgment. Also, the preamble stated that with respect to some statutes or regulations, only some of the requirements may be relevant and appropriate to a particular site, while others may not be (53 FR 51436-37).

Response to comments: 1. General. Several commenters expressed support in general for the revised definition of relevant and appropriate requirements and for the approach described in the proposal to identifying such requirements. Commenters in particular supported statements that a requirement must be both relevant, in that the problem addressed by a requirement is similar to that at the site, and appropriate, or well-suited to the circumstances of the release and the site, to be considered a relevant and appropriate requirement.

A few commenters recommended changes to the definition of relevant and appropriate requirements. One commenter suggested adding to the proposed definition that a relevant and appropriate requirement must be "generally pertinent," a phrase used in the preamble of the proposed NCP in discussing the analysis of the relevance of a requirement, while another suggested adding "pertinent" to the circumstances of the site, expressing concern that "generally pertinent" was overly broad. EPA believes that the concept of "pertinence" is adequately considered as part of the evaluation of what is relevant and appropriate (see discussion of factors for determining relevant and appropriate requirements, below). EPA does not believe that the suggested changes should be made in the definition itself.

Another commenter suggested revising the definition to emphasize the jurisdictional prerequisites of a potentially relevant and appropriate requirement, recommending that a relevant and appropriate requirement be defined as one that, "while not applicable, sufficiently satisfies the jurisdictional prerequisites for legal enforceability." EPA disagrees, because the jurisdictional prerequisites, while key in the applicability determination, are not the basis for relevance and appropriateness. Rather, the evaluation focuses on the purpose of the requirement, the physical characteristics of the site and the waste, and other environmentally- or technically-related factors.

Another commenter objected to the policy that some portions of a regulation could be found relevant and appropriate, while other portions would not be. The commenter believed that this policy would lead to confusion and inconsistency, although the commenter agreed that the application of this policy to RCRA closure requirements, described in the proposal, was useful. EPA believes that this policy is appropriate and reflects its experience in evaluating RCRA closure requirements and other requirements as relevant and appropriate. Finding some parts of a regulation relevant and appropriate, and others not, allows EPA to draw on those standards that contribute to and are suited for the remedy and the site, even though all components of a regulation are not appropriate.

This approach has been particularly valuable as applied to RCRA closure, where the two applicable regulations, clean closure and landfill closure, address only the two poles of a potential continuum of closure responses. When RCRA closure is relevant and appropriate, Superfund may use a combination of these two regulations, known as hybrid closure, to fashion an appropriate remedy for a site that is protective of both ground water and direct contact (for more discussion of hybrid closure, see preamble to the proposed NCP at 53 FR 51446).

2. Factors for determining relevant and appropriate requirements. One commenter suggested referencing the criteria described in § 300.400(g)(2) in the definition. EPA believes this is not appropriate because it could lead to confusion about the role of the criteria and result in greater emphasis on rigidly applying the criteria than is warranted.

Based on this latter comment and others about specific criteria in the proposal, EPA wants to clarify the role of the factors. (Note that the rule now refers to "factors" rather than "criteria.") EPA intends that the factors in § 300.400(g)(2) should be considered in identifying relevant and appropriate requirements, but does not want to imply that the requirement and site situation must be similar with respect to each factor for a requirement to be relevant and appropriate. At the same time, similarity on one factor alone is not necessarily sufficient to make a requirement relevant and appropriate. Rather, the importance of a particular factor depends on the nature of the requirement and the site or problem being addressed and will vary from site to site. While the factors are useful in identifying relevant and appropriate requirements, the final decision is based on professional judgment about the situation at the site and the requirement as a whole.

In addition, as EPA discussed in the proposal, a requirement must be both "relevant," in that it addresses similar situations or problems, and "appropriate," which focuses on whether the requirement is well-suited to the particular site. Consideration of only the similarity of certain aspects of the requirement and the site situation constitutes only half of the analysis of whether a requirement is relevant and appropriate.

After review of comments it received, EPA has revised the language in § 300.400(g)(2) because it is concerned that it was misleading. Some commenters viewed the analysis required by this section as requiring consideration only of the similarity of the requirement and the problems or situation at the CERCLA site. While non-substantive for the most part, the changes to § 300.400(g)(2) make clearer that a requirement and a site situation must be compared, based on pertinent factors, to determine both the relevance and appropriateness of the requirement. The rule also now uses the term "factors," rather than "criteria," a change instituted to avoid confusion with the nine criteria for remedy selection in § 300.430.

One commenter suggested that factors be developed for use in evaluating whether a requirement is "appropriate." EPA does not believe this is necessary. Decisions about the appropriateness of a requirement are based on site-specific judgments using the same set of factors already identified. In the abstract it is very difficult to separate out those factors to be considered for relevance and those to be considered for appropriateness. In specific cases it would be possible to say, for example, that a requirement is relevant in terms of the substances but not appropriate in terms of the facility covered.

Several commenters questioned whether certain factors could legitimately be considered in identifying relevant and appropriate requirements. These and other comments on individual factors are discussed below; a brief description of each factor as described in the proposed NCP is given after the name of the factor.

(i): Purpose of the requirement. This factor compared the purpose of a requirement to the specific objectives of the CERCLA action. One commenter was concerned that the "objectives for the CERCLA action" could include the implementability of the remedy, its cost, and even the acceptability of the action to the community. This is not what EPA meant by "objectives." Rather, EPA intended that this factor consider the technical, or health and environmental purpose of the requirement compared to what the CERCLA action is trying to achieve. For example, MCLs are promulgated to protect the quality of drinking water; this is similar in purpose to a CERCLA action to restore ground water aquifers to drinkable quality. To avoid confusion, EPA has simplified the factor, which now states, "the purpose of the requirement and the purpose of the CERCLA action."

(ii): The medium regulated by the requirement. This factor compared the medium addressed by a requirement to the medium contaminated or affected at a CERCLA site. No comments were received on this factor, and the final rule is essentially unchanged from the proposal.

(iii): The substances regulated by the requirement. This factor compared the substances addressed by a requirement to the substances found at a CERCLA site. Several commenters argued that RCRA requirements for hazardous waste should not be potentially relevant and appropriate to wastes "similar" but not identical to a hazardous waste, and that this criterion should be dropped. EPA disagrees and has discussed this issue in the section of this preamble on RCRA ARARs.

(iv): The entities or interests affected or protected by the requirement. This factor compared the entities or interests addressed by a requirement and those affected by a CERCLA site. Two commenters expressed concern about this factor. One commenter was concerned that it could be used to disqualify standards from being relevant and appropriate simply because the requirement regulated entities different from those at a CERCLA site. In contrast, another commenter was concerned that EPA would broadly apply requirements to entities that were never intended to be subject to the requirement. EPA agrees that this factor is confusing. EPA believes that the characteristics intended to be addressed by this factor are adequately covered under other factors, such as purpose and type of facility. Therefore, this factor has been eliminated.

(v): The actions or activities regulated by the requirement. This factor compared the actions or activities addressed by a requirement to those undertaken in the remedial action at a CERCLA site. No comments were received on this factor, and the final rule is essentially unchanged from the proposal.

(vi): Any variances, waivers, or exemptions of the requirement. This factor considered the availability of variances, waivers, or exemptions from a requirement that might be available for the CERCLA site or action. One commenter asked for clarification on this factor and expressed his view that the CERCLA waiver provisions for ARARs were the only waivers allowable. However, EPA believes that it is reasonable to consider the existence of waivers, exemptions, and variances under other laws because generally there are environmental or technical reasons for such provisions. These provisions are generally incorporated into national regulations because there are specific circumstances where compliance with a requirement may be inappropriate for technical reasons or unnecessary to protect human health and the environment. Again, this factor is only one that should be considered; even if a waiver provision in a requirement matches the circumstances at the CERCLA site, there may be other reasons why the requirement is still relevant and appropriate.

(vii): The type and size of structure or facility regulated by the requirement. This factor compared the characteristics of the structure or facility addressed by a requirement to that affected by or contemplated by the remedial action. One commenter argued that regulations routinely contain cut-offs based on type or size of the structure or facility for administrative or enforcement convenience. EPA agrees that cut-offs based solely on administrative reasons may not be critical in determining whether a requirement is relevant and appropriate. However, EPA believes that it is necessary and appropriate to consider the physical type or size of structure regulated because requirements may be neither relevant nor appropriate to structures or facilities that are dissimilar to those that the requirement was intended to regulate. In many cases, this factor is a very basic one: in identifying requirements relevant to landfills, one would turn to standards for landfills, not for tanks.

(ix): Consideration of use or potential use of affected resources in the requirement. This factor compared the resource use envisioned in a requirement to the use or potential use at a

CERCLA site. One commenter objected to this factor based primarily on opposition to EPA's proposed ground water policy, which, along with the comments EPA has received on this issue, is discussed in the section on ground-water policy in the preamble discussion of § 300.430. EPA believes it is appropriate to compare the resource use considerations in a requirement with similar considerations at a CERCLA site.

Final rule: 1. The following sentence is added to the proposed definition of "relevant and appropriate" in § 300.5 (see preamble discussion above on "applicable"): "Only those state standards that are identified by a state in a timely manner and that are more stringent than federal requirements may be relevant and appropriate."

2. Proposed § 300.400(g)(2) is revised as follows:

> (2) If, based upon paragraph (g)(1) of this section, it is determined that a requirement is not applicable to a specific release, the requirement may still be relevant and appropriate to the circumstances of the release. In evaluating relevance and appropriateness, the factors in paragraphs (g)(2)(i) through (viii) shall be examined, where pertinent, to determine whether a requirement addresses problems or situations sufficiently similar to the circumstances of the release or remedial action contemplated, and whether the requirement is well-suited to the site, and therefore is both relevant and appropriate. The pertinence of each of the following factors will depend, in part, on whether a requirement addresses a chemical, location, or action. The following comparisons shall be made, where pertinent, to determine relevance and appropriateness:
>
> (i) The purpose of requirement and the purpose of the CERCLA action;
>
> (ii) The medium regulated or affected by the requirement and the medium contaminated or affected at the CERCLA site;
>
> (iii) The substances regulated by the requirement and the substances found at the CERCLA site;
>
> (iv) The actions or activities regulated by the requirement and the remedial action contemplated at the CERCLA site;
>
> (v) Any variances, waivers, or exemptions of the requirement and their availability for the circumstances at the CERCLA site;

(vi) The type of place regulated and the type of place affected by the release or CERCLA action;

(vii) The type and size of structure or facility regulated and the type and size of structure or facility affected by the release or contemplated by the CERCLA action;

(viii) Any consideration of use or potential use of affected resources in the requirement and the use or potential use of the affected resource at the CERCLA site.

Name: Section 300.400(g)(3). Use of other advisories, criteria or guidance to-be-considered (TBC).

Proposed rule: The preamble to the proposed rule provided that advisories, criteria or guidance to-be-considered (TBC) that do not meet the definition of ARAR may be necessary to determine what is protective or may be useful in developing Superfund remedies (53 FR 51436). The ARARs preamble described three types of TBCs: health effects information with a high degree of credibility, technical information on how to perform or evaluate site investigations or remedial actions, and policy.

For example, proposed § 300.400(g)(3) stated that other advisories, criteria, and guidance to be considered (TBCs) shall be identified, as appropriate, because they may be useful in developing CERCLA remedies. Proposed § 300.415(j)(§ 300.415(i) in the final rule) stated that other federal and state criteria, advisories, and guidance shall, as appropriate, be considered in formulating the removal action. Proposed § 300.430(b) stated that during project scoping the lead agency shall initiate a dialogue with the support agency on potential ARARs and TBCs. Proposed § 300.430(e)(2) provided that other pertinent information may be used to develop remediation goals. Proposed § 300.430(e)(8) provided that the lead agency shall notify the support agency of the alternatives to be analyzed to facilitate the identification of ARARs and TBCs. Proposed § 300.430(f) on selecting a remedy, however, referred to compliance with ARARs only, not TBCs. Proposed Subpart F required that the lead and support agencies timely identify ARARs and TBCs during the remedial process.

Response to comments: Several commenters requested that the category of "TBCs" be eliminated entirely. Commenters argued that the use of TBCs is not authorized by CERCLA, that this category of information is too broadly defined or open-ended, and that references to TBCs in the NCP mandate consideration of a seemingly limitless category of information. One commenter was concerned that by selecting a health effect assessments as a TBC candidate, the precedent for imposition of this TBC for all sites would be set and may drive remediation costs beyond cost-effectiveness. Some commented that using TBCs in the remedy selection process will lead to much confusion, uncertainty, and delay. Also, commenters suggested that the use of TBCs could lead to lengthy disputes or litigation.

Other commenters contended that the broad definition of TBCs will give lead agencies too much discretion when considering information and determining cleanup levels. A commenter stated that wide discretion could produce inconsistent selection of cleanup goals.

Several commenters argued that TBCs have been given ARAR-like status in the NCP because the proposal requires that lead and support agencies shall identify ARARs and TBCs during the remedial process. A commenter noted that the proposal requires identification of TBCs even when ARARs have been identified, adding an additional layer of regulatory activity not authorized by CERCLA. Another commenter stated that the proposed rule does not even require TBCs to be relevant and appropriate. One commenter stated that the proposal requires that TBCs be identified for remedial actions but does not specify what is to be done with them. Commenters raised due process concerns, arguing that, unlike ARARs, TBCs are not legally promulgated and may not have been subjected to public or technical review and comment.

Commenters suggested that TBCs are unnecessary for establishing contaminant levels because such levels can be determined by regulations or during risk assessments. A commenter proposed that site-specific risk-based remediation levels should be used. Another commenter asserted that TBCs are appropriate for use as general guidelines, but not as requirements. The TBCs listed in the preamble often are not subjected to thorough technical review and are inappropriate for use as substitutes for ARARs.

If EPA retains TBCs in the NCP, commenters suggested that the category be more specifically defined and referred to as helpful reference information only, or used on a voluntary basis. A commenter suggested that, if TBCs are retained, references to their identification and consideration be permissive, not mandatory (e.g., "may, as appropriate, identify TBCs..." rather than "shall identify TBCs..."). A commenter argued that EPA should state that remedies selected through the use of TBCs must be cost-effective, and that TBCs may be used only if the remedy selected falls within the acceptable risk range.

Commenters argued that if EPA uses TBCs to determine cleanup levels, PRPs must be provided with an opportunity to challenge their use. A commenter suggested that the preamble clarify that requirements more stringent than ARARs can be imposed only if ARARs are not protective of human health and the environment.

Some commenters requested clarification that requirements existing under Indian tribe law and enforced as a matter of tribal law should be considered ARARs rather than TBCs.

On the other hand, one commenter argued that some TBCs should be given the same status as ARARs. The commenter explained that most states have ARARs for determining ground and surface water cleanup levels, but promulgated standards for soil cleanup are largely unavailable. The commenter suggested that state policies used to determine guidance values, criteria or standards should be given the same status as ARARs, even if not promulgated, as long as they are used consistently within a state.

In response, EPA believes it is necessary to clarify how it intends TBCs to be used. As a first matter, EPA agrees with commenters that TBCs should not be required as cleanup standards in the rule because they are, by definition, generally neither promulgated nor enforceable so they do not have the same status under CERCLA as do ARARs. TBCs may, however, be very useful in helping to determine what is protective at a site, or how to carry out certain actions or requirements.

Because ARARs do not exist for every chemical or circumstance likely to be found at a Superfund site, EPA believes it may be necessary when determining cleanup requirements or designing a remedy to consult reliable information that would not otherwise be considered to be a potential ARAR. For example, when an MCLG or MCL does not exist for a particular contaminant, EPA intends that the lead or support agency use EPA-developed toxicity information such as cancer potency factors and reference doses for noncarcinogenic effects when developing preliminary remediation goals. Also, many action-specific ARARs have broad performance criteria. The technical information on how to implement such criteria may be contained in guidance documents only. The lead or support agency may need to consider these guidance documents in determining how to comply with the ARAR. Also, the lead or support agency may want to consider policy statements contained in advisories, criteria, or guidance when selecting or designing a remedy.

Accordingly, even though the use of TBCs is not specifically discussed in CERCLA, EPA believes that their use is consistent with the statutory requirements to protect human health and the environment and to comply with ARARs. This opportunity to consider TBCs applies to both removal and remedial actions.

EPA recognizes, as the commenters point out, that, unlike ARARs, the identification and communication of TBCs should not be mandatory. EPA has revised the NCP references to TBCs to make it clear that they are to be used on an "as appropriate" basis. EPA believes that TBCs are meant to complement the use of ARARs by EPA, states, and PRPs, not to be in competition with ARARs.

In response to other comments, even when TBCs are used, the requirements imposed on the remedy, including that it be cost-effective, still apply. Moreover, a PRP can comment on information derived from TBCs, including the reliability and validity of a TBC itself, when it submits comments on the proposed plan. PRP challenges to the use of TBCs are not precluded by EPA's TBC policy because PRPs may still assert in their comments that, in a particular instance, the lead agency's consideration of TBCs in determining remediation goals and objectives is not appropriate or consistent with CERCLA's mandates that remedies protect human health and the environment and be cost-effective.

Further, EPA does not agree that the use of TBCs will necessarily lead to inconsistent selection of cleanup goals. Better consistency may in fact be achieved if all lead agencies use EPA-developed toxicity information for contaminants for which a standard has not yet been developed. Finally, Indian tribal laws may be potential ARARs when they meet the requirements for state ARARs (see introductory preamble section on ARARs, above).

Final rule: References to TBCs will be changed in the following sections to make it clear that their use is discretionary rather than mandatory: §§ 300.400(g)(3), 300.415(i), 300.430(b)(9), 300.430(d)(3), 300.430(e)(8) and (9), 300.505(d)(2)(iii), 300.515(d) and (d)(1) and (2), and 300.515(h)(2).

Name: Sections 300.400(g)(4) and (g)(5). ARARs under state laws.

Proposed rule: Section 300.400(g) specified that only promulgated state standards may be considered potential ARARs. A promulgated state standard must be legally enforceable and of general applicability. The term "legally enforceable," according to the preamble to the proposed NCP, means that state laws or standards which are considered potential ARARs must be issued in accordance with state procedural requirements and contain specific enforcement provisions or be otherwise enforceable under state law. The preamble also explained that "of general applicability" means that potential state ARARs must be applicable to all remedial situations described in the requirement, not just CERCLA sites (53 FR 51437-38).

The preamble also discussed a dispute resolution process to be followed if there is disagreement about the identification of ARARs, as well as policies to be followed if a state insists that a remedy attain a requirement not determined to be ARAR (see 53 FR 51437 and 51457).

Response to comments: Commenters on this subject called for EPA to establish a formal procedure to be followed by states to demonstrate that proposed state ARARs are legally enforceable and of generally applicability. Commenters suggested that states be required to provide legal citations from appropriate sections of state laws, as well as appropriate citations to legal authority for issuing compliance orders, obtaining injunctions, or imposing civil or criminal penalties in the event of noncompliance. These citations, according to commenters, would demonstrate that proposed ARARs are legally enforceable.

Commenters suggested that general applicability could be demonstrated by requiring states to identify the chemicals, locations, and cleanup actions to which a proposed ARAR would apply.

The proposed NCP did not prescribe a specific procedure to be used in evaluating state standards as potential ARARs. A formal process for demonstrating that state requirements are promulgated is not required by CERCLA. EPA believes that the imposition of a formal procedure on states would be a large administrative burden and could impede the cleanup process.

EPA expects, however, that states will substantiate submissions of potential ARARs by providing basic evidence of promulgation, such as a citation to a statute or regulation and, where pertinent, a date of enactment, effective date, or description of scope. Because a citation is the minimum needed to positively identify a requirement, EPA has added regulatory language requiring both lead and support agencies to provide citations when identifying their ARARs.

Section 300.400(g)(4) specifies that only promulgated state standards that are more stringent than federal requirements and are identified by the state in a timely manner may be considered potential ARARs. If a question is raised as to whether a requirement identified by a state conforms to the requirements for being a potential state ARAR, or is challenged on the basis that it does not conform to the definition, the state would have the burden of providing additional evidence to EPA to demonstrate that the requirement is of general applicability, is legally enforceable, and meets the other prerequisites for being a potential ARAR. If EPA does not agree that a state standard identified by a state is an ARAR, EPA will explain the basis for this decision.

Furthermore, the language of CERCLA section 121(d)(2)(A) makes clear, and program expediency necessitates, that the specific requirements that are applicable or relevant and appropriate to a particular site be identified. It is not sufficient to provide a general "laundry" list of statutes and regulations that might be ARARs for a particular site. The state, and EPA if it is the support agency, must instead provide a list of requirements with specific citations to the section of law identified as a potential ARAR, and a brief explanation of why that requirement is considered to be applicable or relevant and appropriate to the site.

Other comments on this section raised objections to EPA's acceptance of general goals as potential ARARs. One commenter questioned whether such general goals were implementable and satisfied the requirements of a promulgated standard, requirement, criteria, or limitation contained in CERCLA 121(d). Another commenter argued that attempts to interpret compliance with a general goal will lead to confusion and delay. Several commenters requested clarification of the status of state nondegradation goals and whether such goals qualified as potential ARARs.

In response, it is necessary to examine the nature of a general goal in order to determine whether it may be an ARAR. General goals that merely express legislative intent about desired outcomes or conditions but are non-binding are not ARARs. EPA believes, however, that general goals, such as nondegradation laws, can be potential ARARs if they are promulgated, and therefore legally enforceable, and if they are directive in intent. The more specific regulations that implement a general goal are usually key in identifying what compliance with the goal means.

For example, in the preamble to the proposed NCP, EPA cited the example of a state antidegradation statute that prohibits the degradation of surface water below a level of quality necessary to protect certain uses of the water body (53 FR 51438). If promulgated, such a requirement is clearly directive in nature and intent. State regulations that designate uses of a given water body and state water quality standards that establish maximum in-stream concentrations to protect those uses define how the antidegradation law will be implemented are, if promulgated, also potential ARARs.

Even if a state has not promulgated implementing regulations, a general goal can be an ARAR if it meets the eligibility criteria for state ARARs. However, EPA would have considerable latitude in determining how to comply with the goal in the absence of implementing regulations. EPA may consider guidelines the state has developed related to the provision, as well as state practices in applying the goal, but such guidance or documents would be TBCs, not ARARs.

Final rule: 1. EPA has revised § 300.400(g)(4) as follows:

> (4) Only those state standards that are promulgated, are identified by the state in a timely manner, and are more

stringent than federal requirements may be applicable or relevant and appropriate. For purposes of identification and notification of promulgated state standards, the term "promulgated" means that the standards are of general applicability and are legally enforceable.

2. Also, language has been added to § 300.400(g)(5) requiring that specific requirements for a particular site be identified as ARARs, and that citations be provided.

Name: Section 300.515(d)(1). Timely identification of state ARARs.

Proposed rule: Section 300.515(d)(1) stated that the lead and support agencies shall identify their respective ARARs (and may identify TBCs) and communicate them to each other in a timely manner such that sufficient time is available for the lead agency to incorporate all potential ARARs and TBCs without inordinate delay and duplication of effort.

Section 300.515(d)(2) provided that a SMOA may specify timeframes for identification of ARARs and TBCs. In the absence of a SMOA, § 300.515(h)(2) provided that the lead and support agencies shall discuss potential ARARs and TBCs during the scoping of the RI/FS. This section also required the support agency to communicate in writing potential ARARs to the lead agency within 30 working days of the receipt of a request from the lead agency for potential ARARs at two steps in the process: no later than when site characterization data are available, and prior to the initiation of the comparative analysis. The preamble to the proposed rule (53 FR 51438) explained that different types of ARARs can be identified at various points in the RI/FS process: chemical-specific and location-specific ARARs after site characterization, and action-specific ARARs after development of alternatives.

Response to comments: Several commenters argued that even states with SMOAs should be required to identify potential ARARs within 30 working days of the receipt of a request from the lead agency. EPA believes, however, that it is appropriate to allow the timeframes for identification of potential ARARs to be negotiated as part of a SMOA, and therefore does not agree with this comment.

The purpose of the SMOA is for EPA and a state to agree on their respective roles and responsibilities during EPA-lead and state-lead response actions. A mutually acceptable timeframe for identifying ARARs is certainly an important component of the decision-making process. Such discussion may also lead to agreement on other important ARARs coordination issues such as the appropriate EPA/state management staff level for communication of ARARs.

One commenter stated that the 30-day requirement is too short, especially for Indian tribes who may not have well-developed systems for identifying and compiling tribal laws. Another commenter suggested that states be given a minimum of 20 working days to respond to a request for ARARs to account for numerous levels of authority involved in the response. Based on program experience, EPA believes a period of 30 working days is appropriate for a support agency to respond to a lead agency request for ARARs in the absence of a negotiated timeframe in a SMOA. The necessity for a longer period should be agreed upon during SMOA negotiations.

Commenters suggested that the discussion of timely identification of ARARs be revised to allow for ARARs identified after the signing of the ROD to be considered legally equivalent to ARARs identified prior to ROD signing. Commenters pointed out that many potential action-specific ARARs cannot be identified until the remedial design phase, which occurs after ROD signing.

EPA believes that remedial actions should be required to comply with ARARs identified by the lead and support agencies before the ROD is signed and should not be required to comply with ARARs identified after that time, provided such ARARs could have been identified before the ROD was signed. However, if a component of a remedy is not identified at the time of ROD signing, requirements in effect when the component is later identified (e.g., during remedial design) will be used to determine ARARs. In addition, remedies will comply with requirements promulgated after ROD signature if necessary to maintain protectiveness (these issues are discussed in greater detail below in the section on "Consideration of newly promulgated or modified requirements.")

Final rule: EPA is promulgating the rule as proposed.

Name: Section 300.430(f)(1)(ii)(C). Circumstances in which ARARs may be waived.

Introduction: CERCLA reauthorization modified somewhat the 1985 NCP's five circumstances in which a specific ARAR need not be attained. Four of the original waivers were essentially codified, and two new waivers added (equivalent standard of performance and inconsistent application of state requirements). These waivers, which by statute apply to on-site remedial activities, must be invoked for each ARAR that will not be attained; the waivers apply only to attainment of ARARs and not to any other CERCLA statutory requirements for remedial actions, such as protection of human health and environment. Since today's rule also requires removal actions to comply with ARARs to the extent practicable, these waivers are also available for removals, as discussed in the preamble for § 300.415(i).

Proposed rule: The proposed NCP revisions essentially incorporated the statutory language of the waivers in the rule without amplification or significant modification in proposed § 300.430(f)(3)(iv)(renumbered as final § 300.430(f)(1)(ii)(C)). The preamble to the proposal did, however, discuss criteria and circumstances under which the waivers might be invoked (53 FR 51438).

Each waiver is discussed below in terms of the proposed criteria, comments on the criteria, and EPA's response to comments. Unless explicitly stated otherwise, the criteria under each waiver may be presumed to remain the same as described in the preamble to the proposed rule.

Response to comments: Two general comments were made about use of waivers. One commenter suggested that the probability of exposure be allowed as grounds for a waiver; for example, the low probability of exposure at a remote site would allow an ARAR such as for drinking water levels in groundwater to be waived. EPA does not believe that there is authorization to use exposure probability as grounds for a waiver. Exposure probability may suggest what standards have to be attained (as with groundwater that may be used for drinking), but cannot exempt a CERCLA response from what would otherwise be ARAR.

Another commenter suggested that waivers be interpreted broadly and used more frequently to expedite response and conserve the Fund. The commenter gave as an example waiving MCLs for Class II groundwater that is not likely to be used for drinking water. EPA acknowledges that waivers of ARARs may be used more frequently in the future as more experience is gained about the practicability of remedies, the nature of state requirements, etc. However, EPA may invoke waivers only when appropriate under the terms of the statute, and not simply when it might be desirable to expedite an action. EPA also notes that a specific waiver is available to help conserve the Fund.

Final rule: EPA is promulgating the rule as proposed.

Name: Section 300.430(f)(1)(ii)(C)(1). Interim measures.

Proposed rule: This waiver is intended for interim measures which by their temporary nature do not attain all ARARs. The criteria proposed were that an interim measure for which this waiver is invoked should be followed within a reasonable time by complete measures that attain ARARs. Also, the interim measure should not exacerbate site problems nor interfere with the final remedy (53 FR 51438-39).

Response to comments: One commenter stated that EPA should define the term, "reasonable time," to put a limit on the amount of time between an interim measure and completion. The commenter was concerned that the waiver could be used to delay completion of a remedial action unless a time limit, such as 3 years, is imposed. EPA believes that putting a specific time limit as a pre-condition for invoking this waiver is impractical because it is difficult to predict exactly when complete measures can be undertaken, given changes in funding, priorities, and other factors.

Another commenter advised that this waiver should not be used to impose needless, duplicative costs in remediation by requiring unnecessary interim steps. EPA agrees that interim actions should be consistent with a final remedy to the extent the latter can be anticipated. This point is addressed in part by the criterion that the interim measure should not interfere with the final remedy.

Final rule: EPA is promulgating the rule as proposed.

Name: Section 300.430(f)(1)(ii)(C)(2). Greater risk to health and the environment.

Proposed rule: This waiver is intended for ARARs whose implementation will cause greater risk to human health and the environment than non-compliance. The criteria proposed for this waiver included magnitude, duration, and reversibility of adverse impacts due to compliance with an ARAR compared to a remedy not complying with that ARAR (53 FR 51439).

Response to comments: Commenters did not specifically disagree with the criteria. One commenter advised caution in invoking this waiver because of the uncertainties in accurately assessing risks and the delays that could ensue from disagreements about these risks. The commenter also said that full public input should be sought before invoking this waiver. In response, EPA notes that public input is required through the proposed plan, which must describe use of a waiver. EPA agrees that risk assessment has uncertainties, but believes that careful assessments that reveal greater risks from compliance with ARARs may be grounds for using this waiver.

Another commenter objected to the preamble discussion for suggesting that the alternative to which compliance with an ARAR is compared is limited to a "no-action" alternative. While the examples provided perhaps suggest that the alternative might have been no action (as with PCB contamination), EPA certainly does not intend that the alternative to which a potentially high risk remedy is compared must be the no-action alternative. As with the example of excavation, there may be other active measures such as capping which can be taken if the ARAR-compliant remedy poses unacceptably high risks.

Final rule: EPA is promulgating the rule as proposed.

Name: Section 300.430(f)(1)(ii)(C)(3). Technical impracticability.

Proposed rule: This waiver is intended when compliance with an ARAR is not technically practicable from an engineering perspective. The criteria proposed for this waiver included engineering feasibility and reliability, with cost generally not a major factor unless compliance would be inordinately costly. Both standard and innovative technologies should be considered before invoking this waiver (53 FR 51439).

Response to comments: Several commenters addressed the issue of cost. Some asserted that cost has no role in determining technical practicability, and should be dropped from consideration. Others stated that cost should play a more explicit role by being one of the criteria (along with feasibility and reliability). EPA believes that cost should generally play a subordinate role in determining practicability from an engineering perspective. Engineering practice is in reality ultimately limited by costs, hence cost may legitimately be considered in determining what is ultimately practicable. On the other hand, if cost were a key criterion in determining the practicability of an ARAR, ARARs would likely be subjected to a cost-benefit analysis rather than a test of true practicability.

One commenter argued that the waiver should be invoked even when an innovative technology is available that may achieve an ARAR unless EPA presents evidence that the technology will be reliable and effective. In the proposal EPA stated that the technical impracticability waiver should not be used where either existing or innovative technologies can reliably, logically, and feasibly attain the ARAR. Innovative technologies are encouraged by the statute and, in accordance with criteria presented elsewhere in the rule, should be employed to attain ARARs where appropriate; the burden of presenting information on such technologies would be on the PRP, not EPA.

One commenter suggested that this waiver should be granted for any carcinogen with an MCLG of zero. The role of MCLGs and MCLs is discussed below in today's preamble. EPA notes that because elimination of contamination to a level of zero is infeasible, this waiver would probably have to be invoked where an ARAR is zero.

Final rule: EPA is promulgating the rule as proposed.

Name: Section 300.430(f)(1)(ii)(C)(4). Equivalent standard of performance.

Proposed rule: This waiver is intended where the standard of performance of a requirement can be equaled or exceeded through another method. The criteria proposed included degree of protection, level of performance, reliability into the future, and time required for results (53 FR 51439-40).

Response to comments: Several commenters maintained that a broader interpretation of the waiver should be used than that proposed by EPA. Specifically, they argued for a case-by-case analysis of concentrations at realistic points of exposure as the best measure of equivalent performance. In other words, they would use an evaluation of exposure risk as the measure of equivalent performance, allowing an entirely different remedial approach than that specified in a requirement as long as the final risk level is the same.

EPA disagrees fundamentally with this approach, which EPA believes is far broader than what Congress intended. As another commenter noted, the purpose of the waiver is to allow alternative technologies that provide a degree of protection as great or greater as the specified technology. The language from the Conference Report on SARA makes clear the narrower purpose of this waiver for the use of alternative but equivalent technologies; comparison based on risk is only permitted where the original standard is risk-based:

> This [waiver] allows flexibility in the choice of technology but does not allow any lesser standard or any other basis (such as a risk-based calculation) for determining the required level of control. However, an alternative standard may be risk-based if the original standard was risk-based.

H.R. Rep. No. 962, 99th Cong., 2d Sess (1986)("Conference Report on SARA") at p. 249. Another commenter believed that EPA's criteria are unnecessarily restrictive, in that these criteria should be balanced in evaluating an alternative rather than required to be equaled or exceeded. EPA believes that the first three criteria, i.e., degree of protection, level of performance, and future reliability, should at least be equaled for an alternative to be considered equivalent. While it is possible that there may be redundancy among the three, a lesser level in any of these criteria would compromise equivalency with the original standard.

Regarding the fourth criterion, EPA proposed that the time required to achieve results using the alternative remedy should not be significantly more than that required under the waived ARAR. Several commenters objected to this criterion, arguing that it could preclude less expensive technologies or ones that provide greater protection or reliability. They were also troubled by the vagueness of the standard of "significantly more."

EPA appreciates the concerns raised by these commenters regarding the role of time in evaluating an alternative for this waiver. The standard proposed was not specific precisely in order to allow cases where alternative methods may provide great benefits even though requiring longer time for implementation, as with, for example, the use of bioremediation instead of incineration. While EPA still believes that the time required to implement an alternative should be considered in using this waiver, with a bias toward quicker remedies, EPA recognizes the validity of commenters' claims that the duration should be balanced against other beneficial factors and should not be a necessary condition for equivalence.

A final commenter expressed concern that this waiver as interpreted by EPA would actually require the alternative to exceed the level of protectiveness provided by the ARAR. EPA does not believe that the criteria that have been proposed for this waiver in any way require that the alternative be more protective than the ARAR, rather, that it be at least as protective as the ARAR.

Final rule: EPA is promulgating the rule as proposed.

Name: Section 300.430(f)(1)(ii)(C)(5). Inconsistent application of state requirements.

Proposed rule: This waiver is intended to prevent application to Superfund sites of state requirements that have not been consistently applied elsewhere in a state. A standard is presumed to have been consistently applied unless there is evidence to the contrary. The preamble to the proposed NCP explained that consistency of application may be demonstrated by the similarity of sites or response circumstances, the proportion of noncompliance cases, reasons for noncompliance, and intentions to apply future requirements. Intent can be demonstrated by policy statements, legislative history, site remedial planning documents, or state responses to federal-lead sites (53 FR 51440).

Response to comments: Several commenters disagreed with EPA's position that potential state ARARs will be considered to have been consistently applied in the past unless evidence exists to the contrary. Commenters also disagreed with EPA's position on state intentions to consistently apply new ARARs. Commenters argued that the statutory language and the legislative history of CERCLA do not contain any basis for EPA's position that potential state ARARs will be presumed to have been consistently applied unless evidence exists to the contrary.

Commenters suggested that EPA develop a formal procedure to be followed by states in demonstrating the consistency of past and future application of standards. One commenter argued that states should bear the burden of proof and should be required to document past applications of potential ARARs.

For those ARARs with established implementation records, commenters favored a policy by which consistent application would be based on documented evidence supplied by the states. One commenter suggested that states be required to provide a list of enforcement actions as evidence in demonstrating consistent application. Another commenter favored the publication of all legally applicable state ARARs in a publicly available document, with appropriate review and comment periods.

For new ARARs without sufficient records of application, one commenter suggested that states should be required to develop an implementation plan for the new ARAR and demonstrate that sufficient funds exist to carry out the plan. Additionally, this commenter proposed that PRPs should have the opportunity to forego compliance with an ARAR if a state does not implement the ARAR in accordance with announced intentions. Another commenter suggested that state intentions to consistently implement an ARAR be recorded in an official record.

In response, the proposed NCP did not contain a specific procedure to be followed by states in demonstrating consistent application of state standards. Rather, the preamble describes what information can be submitted for EPA review when the consistency of application of a particular requirement is questioned.

A standard is presumed to have been consistently applied unless EPA questions that conclusion or requests additional information to substantiate the conclusion. EPA continues to believe that it is proper to presume that a state has consistently applied (or in the case of a newly adopted standard "intends to consistently apply") a standard unless there is reason to believe otherwise. CERCLA section 121(f)(4) is written such that this waiver may be invoked when the President finds that a state requirement is inconsistently applied. CERCLA does not require states to demonstrate consistent application in order for a requirement to be considered an ARAR. Also, imposing an up-front formal procedure on states for demonstrating consistent application would impose a heavy administrative burden. A special implementation plan for newly-promulgated requirements is likewise not required by statute and would be unnecessarily burdensome on states. States have the option of providing evidence of consistent application if EPA is considering waiving a standard. In such a case, the type of evidentiary showings suggested by commenters may be appropriate.

Final rule: EPA is promulgating the rule as proposed.

Name: Section 300.430(f)(1)(ii)(C)(6). Fund-balancing.

Proposed rule: The proposed section is based on CERCLA section 121(d)(4)(F), which states that this waiver may be used for Fund-financed actions under CERCLA section 104 only. The proposal stated that an alternative may be selected that does not attain all ARARs when EPA determines that the ARAR-compliant alternative will not provide a balance between the need for protection of human health and the environment at the site and the availability of Fund monies to respond to other sites that may present a threat to human health and the environment. Further conditions for using this waiver were explained in the preamble to the proposed NCP (53 FR 51440).

The preamble solicited comment on EPA's intention to establish a dollar threshold and specific criteria for routinely invoking this waiver. The threshold would be based on an amount significantly higher than the average cost of remediating sites with problems similar to those at the site under consideration, e.g., the cost of addressing large municipal landfills.

Response to comments: Many of the comments received on establishing a dollar threshold were opposed to it, generally because such a threshold would be arbitrary. One commenter argued that a site cleanup should not be compromised because of a possible future funding shortage elsewhere. Other commenters noted that the amount of money in the Fund is in a steady state of flux and that a fixed dollar threshold would not recognize the dynamic nature of the Superfund program (e.g., PRP-financed responses may have an impact on the Fund.) Establishing an arbitrary dollar threshold is not the proper methodology for this waiver, asserted one commenter. Rather, if an alternative would not attain an ARAR, yet would still fall within the acceptable risk range, then it would warrant selection. Another commenter disagreed with a threshold amount and advised EPA to focus on minimizing Fund-financed cleanups rather than raising the specter of a lower nationwide level of cleanup effort because the Fund may be depleted.

Some commenters supported establishing a dollar threshold. One commenter suggested a threshold of 15 percent over the average cost of remediation at similar types of Superfund sites. Another stated that a threshold addresses the realities of a limited pot of money for the national remediation effort. This commenter recommended calculating the average remedial cost for specific types of sites over 5 years. Such information would be updated periodically to account for inflation and increased costs of treatment and new technologies. Thresholds could be set at one standard deviation above the mean. Another commenter appeared to support the threshold but stated that Congress intended that this waiver be used only in extraordinary circumstances where the Fund resources may be seriously depleted. This commenter argued that exceeding a dollar threshold should result in only an examination of the waiver, not a presumption to invoke the waiver.

In response, the reason for having a Fund-balancing waiver is to ensure that EPA's ability to carry out a comprehensive national response program is not compromised by the expenditure of the Fund at a single site. EPA has decided to establish a policy to routinely consider -- not necessarily invoke -- the Fund-balancing waiver at a threshold point. EPA will use this threshold as a guideline, rather than a requirement, because of the dynamic nature of both the program and of the amount of funds annually appropriated to the program by Congress. EPA believes that it is appropriate to consider the Fund-balancing waiver for unusual, very costly cases. EPA believes that when a single action would be four times the cost of an average operable unit, it could compromise EPA's ability to conduct actions at other sites. Therefore, EPA has decided that the lead agency should routinely consider the Fund-balancing waiver when the cost of a remedy attaining an ARAR is four times the current average cost of operable unit. EPA also reserves the right to invoke the waiver in specific situations when the cost of the remedy is expected to fall below the threshold and EPA determines that the single site expenditure would place a disproportionate burden on the Fund.

In response to comments on use of this waiver by federal agencies other than EPA and by PRPs, EPA notes that CERCLA section 121(d)(4)(F) clearly restricts use of this waiver to response actions conducted under CERCLA section 104 using the Fund, i.e., financed by the Hazardous Substance Superfund. Therefore, this waiver is unavailable for other federal agencies.

Final rule: EPA is promulgating the rule as proposed.

Name: **Section 300.430(e)(2)(i)(B). Use of maximum contaminant level goals for ground-water cleanups.**

Proposed rule: CERCLA section 121(d) states that a remedial action will attain a level or standard of control established under the Safe Drinking Water Act (SDWA), among other statutes, where such level or control is applicable or relevant and appropriate to any hazardous substance, pollutant or contaminant that will remain on-site. The enforceable standards under the SDWA are maximum contaminant levels (MCLs) which represent the maximum permissible level of a contaminant which is delivered to any user of a public water system. Section 121(d) also states that remedial actions shall attain maximum contaminant level goals (MCLGs) where such goals are relevant and appropriate to the circumstances of the release.

Proposed § 300.430(e)(2)(i)(B) reflected EPA's determination that MCLs generally shall be considered relevant and appropriate standards when determining acceptable exposure for ground water and surface water that is a current or potential source of drinking water. This section also stated that in cases involving multiple contaminants or pathways where the risk is in excess of 10^{-4}, MCLGs may be considered when determining acceptable exposures.

An MCLG is a health-based goal set at a level at which no adverse health effects may arise, with a margin of safety. An MCL is required to be set as close as feasible to its respective MCLG, taking into consideration the best technology, treatment techniques, and other factors (including cost). MCLs for noncarcinogens are nearly always set at MCLGs. Many MCLGs for carcinogens, however, are set at zero. MCLs for carcinogens are set above zero.

In the preamble to the proposed rule (53 FR 51441-42), EPA explained that MCLs rather than MCLGs generally are relevant and appropriate to the cleanup of ground water that is or may be used for drinking because MCLs are the enforceable standards under the Safe Drinking Water Act (SDWA), the MCLs for carcinogens are within EPA's acceptable risk range, and MCLs are protective. MCLs represent the level of water quality that EPA believes is acceptable for over 200 million Americans to consume every day from public drinking water supplies. EPA decided that Superfund cleanup of drinking water should use the same standards as EPA's drinking water program.

Since MCLs are usually only legally applicable under the SDWA to the quality of drinking water at the tap, there will be few instances in which MCLs are applicable to cleanup of ground water at a Superfund site. For this reason, MCLs are generally considered "relevant and appropriate" to ground water that is or may be used for drinking. The preamble to the proposed rule further explained that MCLGs may be relevant and appropriate where the risk posed by multiple contaminants or pathways was in excess of 10^{-4} (53 FR 51441).

Response to comments: The majority of commenters supported the proposed NCP's policy on the use of MCLs rather than MCLGs as generally relevant and appropriate standards. Many of these commenters argued that MCLs should generally be the cleanup standard because they are protective of human health and the environment, are generally set at practical limits of detection, fall within EPA's acceptable risk range, and are the enforceable standards under the Safe Drinking Water Act and other environmental programs, e.g., MCLs are used as ground-water protection standards under RCRA.

Some agreed with EPA that it makes little sense to require MCLGs because the result would be that the water around Superfund sites would be cleaner than the water used for drinking. Others argued that requiring MCLGs would undermine SDWA's use of MCLs as enforceable drinking water standards. Commenters argued that MCLGs for ground-water cleanups equal to zero are unattainable and not detectable, primarily because no adequate technologies are presently available. A commenter further stated that the purpose of MCLGs is not to establish cleanup levels and that MCLGs have no relationship to the circumstances at a Superfund site. Another commenter argued that cleanup standards other than MCLs are often impractical to measure.

Commenters also observed that cleanup levels determined by MCLGs may not be attainable. One commenter argued that limitations in cleanup techniques and analytical methodology would make it impossible to achieve MCLGs, waivers would have to be used, and remediation schemes would become needlessly complex and prolonged. Some commenters agreed with EPA's statement that CERCLA does not require EPA to eliminate all risks.

One commenter noted that MCLs for carcinogens are all within EPA's acceptable risk range. A commenter further stated that the use of MCLGs is inconsistent with the requirement that additive risks not exceed 10^{-4}. This commenter argued that because MCLGs represent zero risk, the use of MCLGs undermines EPA's risk assessment policy.

Other comments appeared to generally support the use of MCLs but advised that MCLs should not be used in certain situations. A commenter cautioned that EPA must assure that technical problems with measuring compliance are resolved. Also, this commenter argued that MCLs must be applied with flexibility because they may be overly conservative. Another commenter stated that MCLs should not be used where aquifers are not likely to be employed as drinking water sources or where MCLs may be technically unachievable.

Other commenters generally supported EPA's proposal but disagreed that MCLGs should ever be used for multiple contaminant or pathway situations posing risk in excess of 10^{-4}. Another commenter contended that MCLs provide adequate protection in most cases of potential multiple exposure.

Several of the comments opposed to the proposal argued that the MCL policy is in direct conflict with the statutory language. These commenters contend that MCLs are not sufficiently protective of human health because cost and technical feasibility factors are considered when developing MCLs and that cost considerations cannot be considered until health standards are determined. Some argued that cleanup levels should be based on either MCLGs or health-based standards.

One commenter argued that it is inappropriate for Superfund to use MCLs because the technologies available for Superfund cleanups are different than the technologies used to treat water at public treatment works. The commenter stated that EPA should not confine Superfund's cleanup to financial and technological realities experienced by municipal water systems and that Congressional intent was that Superfund cleanup standards must be more stringent than standards that apply to public drinking water systems.

A commenter argued that CERCLA requires EPA to establish tough upfront cleanup standards (i.e., MCLGs) and that EPA should be required to explain to a community when it needs to waive such requirements on a specific site. It is concerned that, behind closed doors, cleanup remedies that are more protective of public health will be eliminated on the basis of cost or other problematic criteria.

EPA has carefully considered the lengthy and disparate comments on the use of MCLs and MCLGs as potential relevant and appropriate requirements for the cleanup of ground and surface water at CERCLA sites. As a threshold matter, EPA disagrees with those commenters that assert that MCLGs can never be relevant and appropriate. Congress directed EPA in CERCLA section 121(d)(2)(A) to attain MCLGs "where relevant and appropriate under the circumstances of the release," suggesting that MCLGs may be relevant and appropriate in some but not necessarily all situations. The proposed rule itself noted that there may be situations in which MCLGs -- rather than MCLs -- are the relevant and appropriate standard, such as where multiple contaminants or pathways of exposure heighten risk to human health (e.g., risk greater than 10^{-4}). 53 FR at 51441.[13] However, EPA took the position in the proposed rule that consideration of MCLGs as potential relevant and appropriate requirements should be limited to those high-risk situations just mentioned. Now, based on the public comments and a re-examination of the issue, EPA has modified its position on when MCLGs are to be considered potential relevant and appropriate requirements.

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[13] As noted in the final rule, EPA believes it may also be appropriate to consider exposure criteria and other factors set out in § 300.430(e)(2)(i)(A) of the rule in cases involving multiple contaminants or pathways that present risks in excess of 10^{-4}.

EPA's opinion is that where an MCLG establishes a contaminant level above zero, it is appropriate and consistent with the language in CERCLA section 121(d)(2)(A) to consider that MCLG as a potential relevant and appropriate requirement, with determinations to be made on a site-specific basis as to the relevance and appropriateness of meeting that level under the circumstances of the release.[14] When an MCLG is determined not to be relevant and appropriate to the circumstances of the release, the corresponding MCL will be considered a potential relevant and appropriate requirement and will be evaluated under the circumstances of the release.[15] Site-specific assessments of whether a requirement is relevant and appropriate will be made based on the factors set out in § 300.400(g)(2).

Further, EPA believes, consistent with a number of comments, that where an MCLG is equal to zero level of contaminants (as is the case for carcinogens), that MCLG is not "appropriate" for the cleanup of ground or surface water at CERCLA sites. In such cases, the corresponding MCL will be considered as a potential relevant and appropriate requirement, and attained where determined to be relevant and appropriate under the circumstances of the release. This approach best harmonizes the multiple directions of the statute to consider MCLGs, MCLs, and practicability.[16]

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[14] Statutory waivers may also be available on a site-specific basis. CERCLA section 121(d)(4).

[15] For noncarcinogens, MCLs generally are set equal to MCLGs. EPA establishes all MCLs, i.e., for carcinogens and noncarcinogens, at levels that protect human health.

[16] Compare CERCLA section 121(d)(2)(A) ("remedial action shall require a level or standard of control which at least attains maximum contaminant level goals established under the Safe Drinking Water Act ... where such goals or criteria are relevant and appropriate...."); section 121(d)(2)(A)(i) (remedial action shall require a level or standard of control which at least attains "any standard, requirement... under any Federal environmental law, including ... the Safe Drinking Water Act [e.g., MCLs] ... [that] is legally applicable to the ... contaminant concerned or is relevant and appropriate ...."); and section 121(b) ("The President shall select a remedial action that ... utilizes permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable.")

By requiring CERCLA remedies to attain MCLGs only when "relevant and appropriate," section 121(d)(2) of the statute affords EPA considerable discretion. It is EPA's opinion that MCLGs of zero, while reasonable as non-enforceable goals under the SDWA, are not appropriate as cleanup standards under the terms of CERCLA for several reasons. First, the purpose of MCLGs under the SDWA is much different from the purpose of ARARs under CERCLA section 121. Examining the purpose of a requirement is one of the criteria used in the NCP to determine whether a requirement is relevant and appropriate to the circumstances of a release. NCP § 300.400(g)(2)(i).[17]

The purpose of MCLGs under the SDWA is to set goals for both carcinogens and noncarcinogens, at a level at which "no adverse or anticipated effects on the health of persons occur and which allow an adequate margin of safety." SDWA section 1412(b)(1)(B). See also House Report No. 1185, 93rd Cong., 2d Sess. at 20 (July 10, 1974). The MCLGs are the basis from which legally enforceable MCL standards are set; MCLs are designed to come as close as feasible to the respective MCLG, taking into account the best technology, treatment techniques and other factors (including cost). SDWA section 1412(b)(3); 50 FR 46881 (Nov. 13, 1985). As explained in the House debate on the SDWA:

> The Administrator will have to make two judgments. He will have to determine what the health goal -- recommended maximum contaminant level [now known as the MCLG] -- should be. If there is no known safe threshold, the recommended level should be set at zero. But this is not a requirement which is enforceable against public water systems.

120 Cong. Rec. 36366-36403 (statement of Cong. Rogers) (daily ed., Nov. 19, 1974), reprinted in Senate Committee on Environment and Public Works, 97th Cong., 2d Sess., A Legislative History of the Safe Drinking Water Act at 652 (Comm. Print 1982)(emphasis added).

EPA establishes MCLGs under SDWA at threshold levels -- with a margin of safety -- for non-carcinogens, and at a zero level for carcinogens where the threshold level is not known. Congress must be assumed to have been aware of this distinction when it required CERCLA remedies to use only those MCLG goals that are relevant and appropriate in setting enforceable standards to be attained at a site.

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[17] Similarly, the statute cites the "purpose for which criteria were developed" as a principal factor to consider in deciding whether water quality criteria under the CWA are "relevant and appropriate under the circumstances of the release." See CERCLA section 121(d)(2)(B)(i).

EPA also believes that MCLGs of zero are not appropriate for determining the actual cleanup levels to be attained under CERCLA because CERCLA does not require the complete elimination of risk or of all known or anticipated effects; i.e., remedies under CERCLA are not required to entirely eliminate potential exposure to carcinogens. CERCLA section 121 does direct, among other requirements, that remedies protect human health and the environment, be permanent to the maximum extent practicable and be cost-effective. Remedies at Superfund sites comply with these statutory mandates when the amount of exposure is reduced so that the risk posed by contaminants is very small, i.e., at an acceptable level. EPA's risk range of 10^{-4} to 10^{-6} represents EPA's opinion on what are generally acceptable levels. A contaminant level of zero, and the corresponding "no risk" level, are not consistent with the cleanup objectives of the CERCLA program. (Note that EPA has determined that MCLs for carcinogens protect human health because they generally fall within this acceptable risk range. See 54 FR 22093-94 (May 22, 1989); 52 FR 25700-01 (July 8, 1987).)

Another reason that EPA believes that an MCLG of zero is not "appropriate" is that it is impossible to detect whether "true" zero has actually been attained. EPA discussed the scientific difficulty in demonstrating zero contaminant levels during the 1985 rulemaking on MCLGs:

> EPA has emphasized in the rulemaking that zero is not a measurable level in scientific terms and will continue to emphasize that point to the public. That zero is not measurable or attainable is irrelevant to the purpose of setting RMCLs which is to set a health goal to prevent adverse effects with a margin of safety.

50 FR at 46884, 46896 (Nov. 13, 1985) (emphasis added).[18] EPA's experience and judgment is that determining that contaminant levels have been reduced to zero cannot be achieved in practice, and none of the many public comments on this issue provided evidence to the contrary. ARARs must be measurable and attainable since their purpose is to set a standard that an actual remedy will attain.

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[18] See also 49 FR 24347 (June 12, 1984) (emphasis added): "Due to limitations in analytical techniques, it will always be impossible to say with certainly that the substance is not present. In theory, RMCLs at zero will always be unachievable (or at least not demonstrable). While zero could be the theoretical goal for carcinogens in drinking water, in practice, a goal of achieving the analytical detection limits for specific carcinogens would have to be followed."

EPA's interpretation gives effect to another important mandate in CERCLA section 121. In addition to requiring EPA to attain MCLGs where relevant and appropriate, the statute directs EPA to require levels that attain the "requirements" under federal environmental laws, including the SDWA, where legally applicable or relevant and appropriate (section 121(d)(2)(A)). MCLs are the legally enforceable requirements under the SDWA. Thus, section 121 appears to require EPA to attain both MCLs and MCLGs, where applicable or relevant and appropriate, at CERCLA sites. EPA's policy gives effect to these two provisions by identifying the conditions under which either the MCLG or the MCL is the potential relevant and appropriate requirement.

EPA's determination that MCLGs equal to zero are not relevant and appropriate requirements is also consistent with CERCLA section 121(d)(4)(C), which establishes technical impracticability as a basis for waiving a requirement that would otherwise be applicable or relevant and appropriate. This waiver provision indicates that Congress did not intend standards to be attained if they are impracticable to meet under the circumstances of a specific release. EPA has determined that MCLGs equal to zero are not relevant and appropriate because whether that level has been attained cannot be verified under the circumstances of any release.

Alternatively, EPA could have assumed that all MCLGs (including those of zero) are relevant and appropriate requirements, and then used the waiver provision in CERCLA section 121(d)(4)(C) at every site where the issue arises. However, this would result in needlessly complex and prolonged procedures, as one of the other commenters noted.[19] Moreover, EPA believes the better approach is to resolve this issue as a matter of interpretation in its national rulemaking under CERCLA.

Other issues were raised by commenters, such as determining where in the ground water MCLs should be attained, determining which ground waters are or may be used for drinking, setting cleanup standards for several chemicals in an aquifer, and determining reasonable timeframes for ground water cleanups. These issues are addressed elsewhere in today's preamble.

Final rule: For the reasons discussed above, EPA is amending § 300.430(e)(2)(i)(B) through (D) of the final rule to provide as follows:

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[19] Note, however, that the site-specific waivers in CERCLA section 121(d)(4) may still be appropriately considered under this rule in cases where a standard (such as an MCL or an MCLG) is identified as a relevant or appropriate requirement.

(B) Maximum contaminant levels goals (MCLGs), established under the Safe Drinking Water Act, that are set at levels above zero, shall be attained by remedial actions for ground or surface waters that are current or potential sources of drinking water, where the MCLGs are relevant and appropriate under the circumstances of the release based on the factors in § 300.400(g)(2). If an MCLG is determined not to be relevant and appropriate, the corresponding maximum contaminant level (MCL) shall be attained where relevant and appropriate to the circumstances of the release.

(C) Where the MCLG for a contaminant has been set at a level of zero, the MCL promulgated for that contaminant under the Safe Drinking Water Act shall be attained by remedial actions for ground or surface waters that are current or potential sources of drinking water, where the MCL is relevant and appropriate under the circumstances of the release based on the factors in § 300.400(g)(2).

(D) In cases involving multiple contaminants or pathways where attainment of chemical-specific ARARs will result in cumulative risk in excess of 10^{-4}, criteria in paragraph (e)(2)(i)(A) of this section may also be considered when determining the cleanup level to be attained.

Name: Section 300.430(f)(5)(iii)(A). Location of point of compliance for ground-water cleanup standards.

Proposed rule: Section 300.430(e)(2)(i)(B) specified the standards that shall generally be considered relevant and appropriate when determining acceptable exposure levels for ground water or surface water that is a current or potential source of drinking water. Proposed § 300.430(f)(4)(iii)(A)(renumbered as final § 300.430(f)(5)(iii)(A)) states that performance shall be measured at appropriate locations in the ground water, etc. The preamble to the proposed rule explained that for ground water, remediation levels should generally be attained throughout the contaminated plume, or at and beyond the edge of the waste management area when waste is left in place (53 FR 51426). (The preamble also discussed points of compliance for other media (*Id.*); see today's preamble to § 300.430(e), "Feasibility study, 1. Remedial action objectives and remediation goals," for discussion of these other points of compliance.)

Response to comments: Several commenters essentially supported the proposed policy regarding point of compliance, but emphasized that the ground-water classification scheme should not be used to delay cleanup or to "write-off" aquifers.

Several other commenters opposed the proposal that cleanup standards, specifically MCLs or MCLGs, should be met throughout the ground water. Most proposed alternatively that the standards be met only at the tap or other realistic point of use, based on a site-specific exposure or risk assessment, and that higher levels be allowed in the ground water, especially immediately downgradient from a waste management area, to take into account natural attenuation. Some proposed that compliance should be at the facility property boundary, or beyond if exposure is precluded under CERCLA alternate concentration limits. One commenter argued that point of compliance is a site-specific, case-by-case determination that should not be specified in the preamble, while another sought the same level of flexibility for ground-water contamination cleanup as there is for contaminant source areas.

These commenters felt that if compliance is not linked to actual or realistic future exposure, the resulting cleanups would be unnecessary or not cost-effective. They also maintained that using actual or likely points of exposure would be more appropriate to ensure that actual drinking water meets standards. Also, they argued that the proposed point of compliance violates the intent of "relevant and appropriate" in that it is inconsistent with and more stringent than the compliance point under SDWA itself, which is at the tap.

EPA disagrees fundamentally with these commenters. MCLs, which are enforceable drinking water standards, and MCLGs above zero, are indeed relevant in considering cleanup levels for water that is or may be used for drinking. Although SDWA does not focus on general ground-water contamination, EPA believes that the MCL standards and non-zero MCLGs promulgated under SDWA are potentially relevant and appropriate to ground-water contamination. CERCLA sets out a mandate for remedies that are protective of use of ground water by private or public users. For example, section 104(c)(6) reflects Congress's expectation that ground water should be restored to protective levels. If ground water can be used for drinking water, CERCLA remedies should, where practicable, restore the ground water to such levels. Such restoration may be achieved by attaining MCLs or non-zero MCLGs in the ground water itself, excluding the area underneath any waste left in place. Thus, these standards and goals may appropriately be used as cleanup levels in the ground water as well as for the delivery of drinking water by public water systems.

Furthermore, as stated in the preamble to the proposed rule, "EPA's policy is to attain ARARs...so as to ensure protection at all points of potential exposure" (53 FR 51440). Under the approach proposed by many of these commenters -- meeting standards only at the tap -- most ground water would not be restored or remediated, since meeting standards through wellhead treatment could conceivably always be substituted for restoration of the ground water itself. This approach, however, would not protect many potential future users, particularly those with private wells, who may be unaware of the need to treat the contaminated ground water before using it for drinking water. Moreover, this approach depends entirely on institutional controls, which should not be used as the primary remedy when more active remediation measures, which provide greater reliability in the long term, are practicable.

Using the facility property boundary as a point of compliance for MCLs, non-zero MCLGs, or alternate concentration limits raises similar problems. At many CERCLA sites, the concept of a facility property boundary is not meaningful because a facility is not in operation (CERCLA defines the concept in terms of an area where contamination has come to be located). Also, allowing higher ACLs to be set at the boundary in the hope that MCLs or non-zero MCLGs will be achieved at a downgradient well through attenuation does not meet the statutory prerequisites for ACLs in CERCLA section 121(d)(2)(B)(ii), which requires (among other things) surface discharge of the ground water and enforceable means of protecting against use of the contaminated ground water.

One commenter objected that the proposed policy was vague and failed to give criteria for determining point of compliance. The commenter specifically cited the word "generally" in the policy as a source of confusion. EPA believes that the policy as reiterated above gives clear direction, considering that there will be situations, such as where waivers are needed, where cleanup levels cannot be attained throughout the plume.

EPA believes that remediation levels should generally be attained throughout the contaminated plume, or at and beyond the edge of the waste management area, when the waste is left in place. However, EPA acknowledges that an alternative point of compliance may also be protective of public health and the environment under site-specific circumstances.

In particular, there may be certain circumstances where a plume of ground water contamination is caused by releases from several distinct sources that are in close geographical proximity. In such cases, the most feasible and effective ground-water cleanup strategy may be to address the problem as a whole, rather than source-by-source, and to draw the point of compliance to encompass the sources of release. In determining where to draw the point of compliance in such situations, the lead agency will consider factors such as the proximity of the sources, the technical practicability of ground-water remediation at that specific site, the vulnerability of the ground water and its possible uses, exposure and likelihood of exposure and similar considerations. Additional guidance on dealing with remote sites is provided in the preamble section above on ground-water policy.

Final rule: EPA is promulgating in final § 300.430(f)(5)(iii)(A) the statement on points of compliance ("performance shall be measured at appropriate locations in the ground water, ...") that was in proposed § 300.430(f)(4)(iii)(A).

Name: Section 300.430(e)(2)(i)(F). Use of alternate concentration limits (ACLs).

Proposed rule: The preamble to the proposed NCP (53 FR 51434) discussed conditions under which alternate concentration limits (ACLs) specified under CERCLA may be used as cleanup standards. The preamble explained that CERCLA ACLs may be used if the conditions of CERCLA section 121(d)(2)(B)(ii) are met and cleanup to MCLs or other protective levels is not practicable.

Response to comments: Several comments were made on the proposed preamble section explaining the use of CERCLA ACLs. Some commenters supported the proposed use of ACLs as is; others suggested that EPA should do more to emphasize their utility, particularly within a facility; and one commenter maintained that ACLs should not be less stringent than other standards.

In support of the proposal, one commenter pointed out that use of institutional controls and ACLs are appropriate for the same reason, that is, when use of treatment to attain drinking water standards is not practicable. Other commenters noted that ACLs provide desirable flexibility and are already well established under the RCRA program. One commenter pointed out that use of an ACL at a site should not require a new risk assessment in addition to that done during the RI/FS.

Some commenters suggested ways to expand the use of ACLs at CERCLA cleanups. One commenter wanted EPA to include the use of ACLs in the NCP's regulatory language. Another commenter, noting that Congress's concern was primarily with use of ACLs for exposure points outside a facility, suggested that ACLs could be expected to have great utility within the boundaries of a CERCLA facility; they could be granted when contaminants in ground water will attenuate to ARAR-compliant levels at the leading edge of the plume. With this in mind the commenter suggested that ACLs should be an intrinsic consideration in the initial step of ARARs identification. In a similar vein another commenter suggested that the facility boundary should be defined to include the area covered by institutional controls for the purpose of the statutory criteria and for defining the point of exposure.

EPA disagrees generally with those commenters who would extend the use of CERCLA ACLs set above drinking water standards to areas within the facility boundary or areas covered by institutional controls. EPA interprets the CERCLA section on ACLs not as an entitlement, but rather as a limitation on the use of levels in excess of standards that would otherwise be appropriate for a site. Although the limitation refers only to areas outside the facility boundary, EPA maintains that the same principle holds within the boundary (to the edge of any waste management area left at the site), namely, that such ACLs should only be used when active restoration of the ground water to MCLs or non-zero MCLGs is not practicable. Clearly, the availability of institutional controls in itself is not sufficient reason to extend the allowance for levels above drinking water standards or non-zero goals; rather, as discussed elsewhere in the preamble, institutional controls are considered as the sole remedy only where active remediation is not practicable.

EPA also disagrees with a commenter who asserted that ACLs cannot be less stringent than state or tribal ARARs or MCLGs. There is clearly no point to the ACL described in CERCLA unless it is above the standard normally applied to ground water of a given class. EPA does, however, believe that the policy described above should mitigate the commenter's fears that ground water will be sacrificed.

These comments suggest some confusion as to when MCLs or MCLGs need to be waived under CERCLA section 121(d)(4). EPA's policy is that MCLs or MCLGs above zero should generally be the relevant and appropriate requirement for ground water that is or may be used for drinking, and that a waiver is generally needed in situations where a relevant and appropriate MCL or non-zero MCLG cannot be attained. If, however, a situation fulfills the CERCLA statutory criteria for ACLs, including a finding that active restoration of the groundwater to MCLs or non-zero MCLGs is deemed not to be practicable, documentation of these conditions for the ACL is sufficient and additional documentation of a waiver of the MCL or MCLG is not necessary.

In determining that a CERCLA ACL may be used outside the facility boundary, the risk assessment and other analysis conducted in the RI/FS generally should provide the information required for the documentation that the statutory criteria and other guidelines given above are satisfied. EPA has added a reference to use of ACLs as prescribed in CERCLA in § 300.430(e)(2)(i)(F).

Final rule: EPA has added a § 300.430(e)(2)(i)(F) to the rule to reference the language in CERCLA section 121(d)(2)(B)(ii) on alternate concentration limits.

Name: Section 300.430(e)(2). Use of federal water quality criteria (FWQC).

Proposed rule: The preamble to the proposed rule discussed when federal water quality criteria are likely to be relevant and appropriate (53 FR 51442). EPA stated that a FWQC, or a component of a FWQC, may be relevant and appropriate when the FWQC is intended to protect the uses designated for the water body at the site, or when the exposures for which the FWQC are protective are likely to occur. In addition, whether a FWQC is relevant and appropriate depends on the availability of standards, such as an MCL or state water quality standard, specific for the constituent and use. In particular, when a promulgated MCL exists, an FWQC would not be relevant and appropriate for a current or potential drinking water supply.

Response to comments: One commenter opposed EPA's policy on the relevance and appropriateness of federal water quality criteria (FWQC) for current or potential drinking water sources when both FWQC and MCLs are available for a contaminant. The commenter stated that the test for relevance and appropriateness of an FWQC was whether it is protective of humans or aquatic organisms and whether that kind of exposure is an issue at the site. The commenter maintained that if an FWQC is more stringent than an MCL, the FWQC should apply, consistent with the policy that the most stringent ARAR must be complied with.

In response, FWQC are to be attained "where relevant and appropriate under the circumstances of the release or threatened release," as provided in CERCLA section 121(d)(2)(B). Final rule § 300.430(e)(2)(i)(E) reflects this fact. However, EPA believes that at many sites, FWQC will not be both relevant and appropriate in light of other potential ARARs.

EPA agrees with the commenter that the more stringent ARAR should generally be attained, especially in the case of "applicable" requirements. However, the determination of whether a requirement is relevant and appropriate is not based on its stringency; rather, other criteria are used, as discussed in the section on relevance and appropriateness, and the remedy must comply with the most stringent requirement determined to be ARAR. EPA also believes that, in some situations, the availability of certain requirements that more fully match the circumstances of the site may result in a decision that another requirement is not relevant and appropriate. EPA believes that one such situation is when an MCL or non-zero MCLG and an FWQC for human health are available for the same contaminant when a current or potential source of drinking water is of concern, and there are no impacts to aquatic organisms.

As discussed in this preamble, EPA believes that an MCL or non-zero MCLG is generally the relevant and appropriate requirement for ground water that is a current or potential source of drinking water. EPA also believes that an MCL or non-zero MCLG, promulgated specifically to protect drinking water, generally is the appropriate standard for ground water even if an

FWQC for human health is also available for the contaminant, for the following reasons.

CERCLA section 121(d)(2)(B)(i) lists, among other factors, the purpose for which the criteria were developed and the designated or potential use of the water as factors in determining whether FWQC are relevant and appropriate. Since FWQC for human health are promulgated for exposures that include drinking water and consuming fish, on the one hand, and consuming fish only, on the other, it is not directly the purpose of such criteria to provide drinking water standards per se, although levels that protect such a use can be mathematically derived from these two values. Furthermore, such derived values for drinking water will not reflect the contribution of other sources (through an apportionment factor), as MCLs and MCLGs do. Finally, for carcinogens FWQC are recommended at zero, although values corresponding to risks of 10^{-5}, 10^{-6}, and 10^{-7} are also given. For the reasons given in the discussion of MCLs and MCLGs above, the zero value is not considered relevant and appropriate under CERCLA; MCLs, however, represent a level determined to be both protective of human health for drinking water and attainable by treatment.

For the same reasons, EPA believes that MCLs or non-zero MCLGs generally will be the relevant and appropriate standard for surface water designated as a drinking water supply, unless the state has promulgated water quality standards (WQS) for the water body that reflect the specific conditions of the water body. However, surface water bodies may be designated for uses other than drinking water supply, and therefore an FWQC intended to be protective of such uses, such as the FWQC for consumption of fish or for protection of aquatic life, may very well be relevant and appropriate in such cases. Also, where a contaminant does not have an MCL or MCLG, FWQC adjusted to reflect drinking water use may be used as relevant and appropriate requirements.

Final rule: EPA is including in the final rule at § 300.430(e)(2)(i)(E) language stating that FWQC are to be attained where relevant and appropriate under the circumstances of the release or threatened release.

Name: Section 300.435(b)(2). Compliance with applicable or relevant and appropriate requirements (ARARs) during the remedial action.

Proposed rule: CERCLA section 121 requires that, at the completion of a remedial action, a level or standard of control required by an ARAR will be attained for wastes that remain on-site. However, consistent with the 1985 NCP (§ 300.68(i), § 300.435(b) of the proposed NCP also required compliance with ARARs during implementation of the action, stating that during the course of the remedial design/remedial action (RD/RA), the lead agency shall be responsible for ensuring that all federal and state ARARs identified for the action are being met, unless a waiver is invoked. Examples of such requirements given in the preamble to the proposed rule included RCRA treatment, storage, and disposal requirements, Clean Air Act national ambient air quality standards, and Clean Water Act effluent discharge limitations (53 FR 51440).

Response to comments: EPA received a number of comments that the NCP should not require compliance with ARARs during the remedial action. Commenters argued that this policy is inconsistent with the statute, which requires compliance with ARARs only at the completion of the remedial action, and questioned EPA's authority to require compliance with ARARs during remedial design/remedial action.

Several commenters pointed out that CERCLA 121(d)(1) states that remedial actions must be protective and "must be relevant and appropriate under the circumstances," and argued that this standard should govern how the action itself is carried out. Design and operation of the remedial action should be based on best professional judgment and undertaken in a manner that is protective. Other commenters suggested requiring compliance only with those ARARs that "can reasonably be achieved," or listing specific types of ARARs that must be met during RD/RA.

Commenters were particularly concerned about problems created by requiring compliance with RCRA requirements and the land disposal restrictions in particular for remedial actions.

EPA disagrees with these commenters. EPA believes that it is appropriate to require that remedial activities comply with the substantive requirements of other laws that apply or are relevant and appropriate to those activities. The reasons for complying with such laws during the conduct of the remediation are basically the same as the reasons for applying ARARs as remediation objectives: the laws help define how the activity can be carried out safely and with proper safeguards to protect human health and the environment. EPA is concerned that, if the narrowest possible interpretation were applied to ARARs compliance, compliance with laws critical to protection of health and the environment would become subject to debate, laws such as those that govern surface water discharges or air emissions, or that set operational standards for incineration of hazardous waste.

Several commenters also stated that chemical-specific ARARs used as remediation goals, such as MCLs as ARARs for ground water remediation, cannot be attained during implementation. EPA wants to clarify that it recognizes that ARARs that are used to determine final remediation levels apply only at the completion of the action.

It is worthwhile to point out, in the context of this policy on complying with ARARs pertaining to the remedial activity itself, that CERCLA provides a waiver from ARARs for interim actions, provided the final action will attain the waived standard. If there is doubt about whether an ARAR represents a final remediation goal or an interim standard, and it cannot be met during the activity, this waiver could be invoked.

Comments were also received on EPA's discussion of compliance with ARARs during remedial investigations in the preamble to the proposed NCP (53 FR 51442-43). In that discussion, EPA stated that on-site handling, treatment or disposal of investigation-derived waste must satisfy ARARs and that the field investigation teams should use best professional judgment in determining when such wastes contain hazardous substances. One commenter recommended that investigation-derived samples be required to be handled, treated, and disposed in accordance with applicable RCRA requirements.

In response, EPA wishes to clarify the discussion in the preamble to the proposed NCP. CERCLA section 101(23) defines "removal" to include "such actions as may be necessary to monitor, assess, and evaluate the release or threat of release of hazardous substances...[including] action taken under section 104(b) of [CERCLA]." EPA has stated, therefore, that studies and investigations undertaken pursuant to CERCLA section 104(b), such as activities conducted during the RI/FS, are considered removal actions (54 FR 13298, March 31, 1989). EPA's policy, explained elsewhere in today's preamble, is that removal actions will comply with ARARs to the extent practicable, considering the exigencies of the circumstances. Thus, the field investigation team should, when handling, treating or disposing of investigation-derived waste on-site, conduct such activities in compliance with ARARs to the extent practicable, considering the exigencies of the situation. Investigation-derived waste that is transported off-site (e.g., for treatability studies or disposal) must comply with applicable requirements of the CERCLA off-site policy (OSWER Directive No. 9834.11 (November 13, 1987) and § 300.440 when finalized (see 53 FR 48218, November 29, 1988).[20] EPA notes that CERCLA section 104(c)(1) provides that the statutory limits on removals do not apply to investigations, monitoring, surveying, testing and other information-gathering performed under CERCLA section 104(b).

__Final rule__: EPA is promulgating the rule as proposed.

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[20] The CERCLA off-site policy requires that receiving facilities are in compliance with "applicable laws." Note that many treatability study wastes are exempt from the permitting requirement under RCRA (see 40 CFR 261.4(e) and (f)).

Name: 300.5. Distinction between substantive and administrative requirements.

Proposed rule: The proposed definitions of "applicable" and "relevant and appropriate" stated that they are cleanup standards, standards of control, and other substantive environmental protection requirements, criteria or limitations. The preamble to the proposed rule explained that requirements that do not in and of themselves define a level or standard of control are considered administrative (53 FR 51443). Administrative requirements include the approval of, or consultation with, administrative bodies, issuance of permits, documentation, and reporting and recordkeeping. Response actions under CERCLA are required to comply with ARARs, which are defined not to include administrative requirements.

Response to comments: Many comments were received on EPA's differentiation between substantive and administrative requirements. Some commenters supported the distinction between substantive and administrative requirements. Other commenters disagreed with EPA's interpretation for various reasons.

Several commenters argued that Superfund actions should not be exempt from consultation requirements. One commenter argued that consultation with a state may be necessary to determine how state ARARs apply to the remedy. A commenter contended that it is virtually impossible to meet substantive requirements without consultation. One commenter asserted that state procedures or methodology necessary to determine permit levels should be considered state ARARs. Another argued that not requiring consultation runs opposite to the spirit of cooperation with states. One commenter suggested narrowing the exemption to allow for consultation through existing Superfund mechanisms such as consent orders, SMOAs, and cooperative agreements.

Commenters also objected to the exemption from reporting and recordkeeping requirements. One contended that EPA had no legal authority for such exemption. Others argued that reporting and recordkeeping are necessary to ensure proper control of hazardous substances that will remain on-site and are also necessary for activities with local impacts: long-term water diversions and air or surface water releases. Commenters asserted that the lead agency must meet reporting requirements to avoid gaps in a state's environmental data. One commenter noted that there are a number of federal and state programs that require the maintenance of complete databases and that the NCP's approach is inconsistent with such programs. Under these programs, a state needs all discharge information in order to evaluate surface water toxicity impacts in a stream or to establish total maximum daily loads.

The concern was also raised that maintaining reporting and recordkeeping procedures on a site-by-site basis would undermine a state's standardized reporting requirements, e.g., ground-water monitoring report forms, NPDES forms, etc. Also, unique site approaches to reporting and recordkeeping may result in problems not detected by a state. Further, these commenters stated that they were not aware of Superfund recordkeeping and reporting requirements. One commenter stated that reporting requirements and compliance mechanisms during remedy implementation and O&M periods should be specified through Superfund mechanisms, as appropriate. One commenter contended that if Superfund insists on this distinction, a determination whether a requirement is substantive or administrative must be documented.

EPA has reviewed these comments, but concludes, as stated in the preamble to the proposed NCP (53 FR 51443), that CERCLA response actions should be subject only to substantive, not administrative, requirements. EPA believes that this interpretation is most consistent with the terms of CERCLA and with the goals of the statute. Section 121(d)(2) provides that remedial actions should require "a level or standard of control" which attains ARARs; only substantive standards set levels or standards of control. Moreover, Congress made clear in sections 121(d)(2) and (d)(4) that the "standards" or "requirements" of other laws that are ARARs should be applied to actions conducted on-site, and specifically provided in section 121(e)(1) that federal and state permits would not be required for such on-site response actions. These subsections reflect Congress' judgment that CERCLA actions should not be delayed by time-consuming and duplicative administrative requirements such as permitting, although the remedies should achieve the substantive standards of applicable or relevant and appropriate laws. Indeed, CERCLA has its own comparable procedures for remedy selection and state and community involvement. EPA's approach is wholly consistent with the overall goal of the Superfund program, to achieve expeditious cleanups, and reflects an understanding of the uniqueness of the CERCLA program, which directly impacts more than one medium (and thus overlaps with a number of other regulatory and statutory programs). Accordingly, it would be inappropriate to formally subject CERCLA response actions to the multitude of administrative requirements of other federal and state offices and agencies.

At the same time, EPA recognizes the benefits of consultation, reporting, etc. To some degree, these functions are accomplished through the state involvement and public participation requirements in the NCP. In addition, EPA has already strongly recommended that its regional offices (and states when they are the lead agency) establish procedures, protocols or memoranda of understanding that, while not recreating the administrative and procedural aspects of a permit, will ensure early and continuous consultation and coordination with other EPA programs and other agencies. CERCLA Compliance with Other Laws Manual, OSWER Directive No. 9234.1-01 (August 8, 1988). In working with states, EPA generally will coordinate and consult with the state superfund office. That state superfund office should distribute to or obtain necessary information from other state offices interested in activities at Superfund sites.

The basis for this recommendation is a recognition that such coordination and consultation is often useful to determine how substantive requirements implemented under other EPA programs and by other agencies should be applied to a Superfund action. For example, although the Superfund office will make the final decisions on using ARARs, a water office may provide information helpful in determining ARARs when a surface water discharge is part of the Superfund remedy. Such information may include surface water classifications, existing use designations, technology-based requirements, and water quality standards. A water office may also be able to provide advice during the detailed analysis of alternatives on the effectiveness and implementability of treatment alternatives and the likely environmental fate and effects of surface or ground-water discharges. Other offices or agencies with different environmental responsibilities may similarly provide useful information, if it is given in a timely manner.

EPA also recognizes the importance of providing information to other programs and agencies that maintain environmental data bases. This is particularly true where the remedy includes releases of substances into the air or water and the extent of such releases is integral for air and water programs to maintain accurate information on ambient air and surface water quality in order to set statutorily-specified standards. Monitoring requirements themselves are considered substantive requirements and are necessary in order to document attainment of cleanup levels and compliance with emission limitations or discharge requirements identified as ARARs in the decision document. EPA strongly encourages its OSCs or RPMs, or the agency that is responsible for maintaining the operation and maintenance of an action (e.g., pump and treat system), to provide reports on monitoring activities to other offices in a form usable to those offices.

In summary, cleanup standards must be complied with; although administrative procedures such as consultation are not required, they should be observed when, for example, they are useful in determining the cleanup standards for a site. EPA believes that in order to ensure that Superfund actions proceed as rapidly as possible it must maintain a distinction between substantive and administrative requirements.

Final rule: EPA is promulgating the reference to "substantive" in the § 300.5 definitions of "applicable" and "relevant and appropriate" as proposed.

Name: Section 300.430(f)(1)(ii)(B). Consideration of newly promulgated or modified requirements.

Proposed rule: The preamble to the proposed rule discussed how new requirements or other information developed subsequent to the initiation of the remedial action should be addressed (53 FR 51440). It explained that new requirements or other information should be considered as part of the five-year review (as provided for in § 300.430(f)(3)(v))(renumbered as final § 300.430(f)(5)(iii)(C)) to ensure that the remedial action is still protective of human health and the environment. That is, if a requirement that would be applicable or relevant and appropriate to the remedy is promulgated after the initiation of remedial action, the remedy will be evaluated in light of the new requirement to ensure that the remedy is still protective.

Response to comments: Several commenters objected to EPA's policy requiring consideration of new requirements on the grounds that the statute requires the five-year review only to determine that a remedy is still protective. These commenters were concerned that consideration of new requirements would require additional analysis and perhaps drastic changes in design; would impose an open-ended liability on PRPs; and would violate PRPs' right to due process. Two commenters suggested that making new requirements part of a negotiation process based on a reopener in the settlement agreement could alleviate the second and third concern.

Based on the comments and its experience in carrying out remedies, EPA is modifying its policy on considering newly promulgated or modified requirements to address those requirements that are promulgated or modified after the ROD is signed, rather than those requirements promulgated or modified after the initiation of remedial action, as discussed in the proposal. Once a ROD is signed and a remedy chosen, EPA will not reopen that decision unless the new or modified requirement calls into question the protectiveness of the selected remedy. EPA believes that it is necessary to "freeze ARARs" when the ROD is signed rather than at initiation of remedial action because continually changing remedies to accommodate new or modified requirements would, as several commenters noted, disrupt CERCLA cleanups, whether the remedy is in design, construction, or in remedial action. Each of these stages represents significant time and financial investments in a particular remedy. For instance, the design of the remedy (treatment plant, landfill, etc.) is based on ARARs identified at the signing of the ROD. If ARARs were not frozen at this point, promulgation of a new or modified requirement could result in a reconsideration of the remedy and a re-start of the lengthy design process, even if protectiveness is not compromised. This lack of certainty could adversely affect the operation of the CERCLA program, would be inconsistent with Congress' mandate to expeditiously cleanup sites and could adversely affect PRP negotiations, as noted by commenters. The policy of freezing ARARs will help avoid constant interruption, re-evaluation, and re-design during implementation of selected remedies.

EPA believes that this policy is consistent with CERCLA section 121(d)(2)(A), which provides that "the remedial action selected...shall require, at the completion of the remedial action," attainment of ARARs. EPA interprets this language as requiring attainment of ARARs identified at remedy selection (i.e., those identified in the ROD), not those that may come into existence by the completion of the remedy.[21] Neither the explicit statutory language nor the legislative history supports a conclusion that a ROD may be subject to indefinite revision as a result of shifting requirements. Rather, given the need to ensure finality of remedy selection in order to achieve expeditious cleanup of sites, and given the length of time often required to design, negotiate, and implement remedial actions, EPA believes that this is the most reasonable interpretation of the statute.

As EPA discusses elsewhere in this preamble, one variation to this policy occurs when a component of the remedy was not identified when the ROD is signed. In that situation, EPA will comply with ARARs in effect when that component is identified (e.g., during remedial design), which could include requirements promulgated both before and after the ROD was signed. EPA notes that newly promulgated or modified requirements may directly apply or be more relevant and appropriate to certain locations, actions or contaminants than existing standards and, thus, may be potential ARARs for future responses.

It is important to note that a policy of freezing ARARs at the time of the ROD signing will not sacrifice protection of human health and the environment, because the remedy will be reviewed for protectiveness every five years, considering new or modified requirements at that point, or more frequently, if there is reason to believe that the remedy is no longer protective of health and environment.

In response to the specific comments received, EPA notes that under this policy, EPA does not intend that a remedy must be modified solely to attain a newly promulgated or modified requirement. Rather, a remedy must be modified if necessary to protect human health and the environment; newly promulgated or modified requirements contribute to that evaluation of protectiveness. For example, a new requirement for a chemical at a site may indicate that the cleanup level selected for the chemical corresponds to a cancer risk of 10^{-2} rather than 10^{-5}, as originally thought. The original remedy would then have to be modified because it would result in exposures outside the acceptable risk range that generally defines what is protective.

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[21] No commenters objected to the position in the preamble to the proposed rule that CERCLA remedial actions should attain ARARs identified at the initiation -- versus completion -- of the action.

This policy that newly promulgated or modified requirements should be considered during protectiveness reviews of the remedy, but should not require a reopening of the ROD during implementation every time a new state or federal standard is promulgated or modified, was discussed in the preamble to the proposed rule (53 FR at 51440) but not in the rule section itself. For the reasons outlined above, EPA believes that this concept is critical to the expeditious and cost-effective accomplishment of remedies duly selected under CERCLA and the NCP, and thus is appropriate for inclusion in § 300.430(f)(1)(ii)(B) of the final NCP. This will afford both the public and implementing agencies greater clarity as to when and how requirements must be considered during CERCLA responses, and thus will allow the CERCLA program to carry out selected remedies with greater certainty and efficiency. Of course, off-site CERCLA remedial actions are subject to the substantive and procedural requirements of applicable federal, state, and local laws at the time of off-site treatment, storage or disposal.

Final rule: EPA is adding the following language to the rule at § 300.430(f)(1)(ii)(B):

> (B) On-site remedial actions selected in a ROD must attain those ARARs that are identified at the time of ROD signature or provide grounds for invoking a waiver under § 300.430(f)(1)(ii)(C)(3).
>
> (1) Requirements that are promulgated or modified after ROD signature must be attained (or waived) only when determined to be applicable or relevant and appropriate and necessary to ensure that the remedy is protective of human health and the environment.
>
> (2) Components of the remedy not described in the ROD must attain (or waive) requirements that are identified as applicable or relevant and appropriate at the time the amendment to the ROD or the explanation of significant differences describing the component is signed.

Name: Applicability of RCRA requirements.

Proposed rule: The preamble to the proposed rule discussed when RCRA Subtitle C requirements will be applicable for site cleanups (53 FR 51443). It described the prerequisites for "applicability" at length, which are that: (1) the waste must be a listed or characteristic RCRA hazardous waste and (2) treatment, storage or disposal occurred after the effective date of the RCRA requirements under consideration (for example, because the activity at the CERCLA site constitutes treatment, storage, or disposal, as defined by RCRA).

The preamble explained how EPA will determine when a waste at a CERCLA site is a listed RCRA hazardous waste. It noted that it is often necessary to know the origin of the waste to determine whether it is a listed waste and that, if such documentation is lacking, the lead agency may assume it is not a listed waste.

The preamble discussed how EPA will determine that a waste is a characteristic hazardous waste under RCRA. It stated that EPA can test to determine whether a waste exhibits a characteristic or can use best professional judgment to determine whether testing is necessary, "applying knowledge of the hazard characteristic in light of the materials or process used."

The preamble also discussed when a CERCLA action constitutes "land disposal," defined as placement into a land disposal unit under section 3004(k) of RCRA, which triggers several significant requirements, including RCRA land disposal restrictions (LDRs) and closure requirements (when a unit is closed). It equated an area of contamination (AOC), consisting of continuous contamination of varying amounts and types at a CERCLA site, to a single RCRA land disposal unit, and stated that movement within the unit does not constitute placement. It also stated that placement occurs when waste is redeposited after treatment in a separate unit (e.g., incinerator or tank), or when waste is moved from one AOC to another. Placement does not occur when waste is consolidated within an AOC, when it is treated in situ, or when it is left in place.

Response to comments: EPA received many comments on its discussion of when RCRA requirements can be applicable to CERCLA response actions. On the issue of compliance with RCRA in general, most of these commenters argued that RCRA requirements are not intended for site cleanup actions, that such compliance will result in delays and that RCRA requirements are often unnecessary to protect human health and the environment at CERCLA sites. Other commenters argued, however, that EPA is trying to avoid compliance with RCRA requirements. Most of the comments, however, focused on when LDRs are applicable to CERCLA actions and on EPA's discussion of what actions associated with remediation trigger LDRs.

Some commenters opposed EPA's interpretation of "land disposal" or "placement" as too lenient, believing that EPA is trying to avoid compliance with RCRA laws, particularly LDRs.

These commenters argued that LDRs should be applicable when hazardous wastes are managed, excavated, or moved in any way. One argued that ARARs waivers are available to address situations when the LDR levels cannot be achieved and should be used as necessary, rather than trying to narrowly define the universe of ARARs to avoid waivers. This commenter was also concerned with EPA's use of the term "unit," calling it an inappropriate concept for Superfund sites because it will allow the excavation and redeposition of waste within very large areas without ever meeting RCRA design and operating standards and LDR. One commenter asserted that EPA concerns on LDRs stem from an unjustifiable belief that LDR cleanup levels cannot be achieved.

Other commenters believed that the definition of "placement" should provide more flexibility. One asserted that replacement of treated residuals in the proximate area should not constitute placement. The commenter argued that Congress intended to address, preventively or prospectively, the original act of disposal, and that an innocent government or public entity should not be required to assume the entire environmental responsibility of the original disposers. The commenter also argued that establishing that replacement of treated waste triggers LDRs will be a serious disincentive to treating wastes. Some commenters argued that LDRs should not be relevant and appropriate where the CERCLA waste to be disposed on land is merely similar in composition to RCRA banned waste.

Other commenters argued that LDRs are inappropriate for CERCLA remedial actions. They noted an inherent conflict between LDRs, which require treatment to BDAT levels, and the CERCLA process, and claimed that LDRs will supplant CERCLA's "carefully articulated and balanced approach to remedy selection." Commenters asserted that compliance with LDRs will create technical problems because of differences between CERCLA wastes and those evaluated for LDRs. The solutions recommended by these commenters primarily focused on narrowing or eliminating RCRA applicability, but included suggestions for creating treatability groups for CERCLA-type waste and seeking legislative waivers from LDRs, e.g., a waiver from LDRs for Superfund actions at NPL sites.

One commenter believed that the concept of "unit" is not readily transferable to CERCLA sites due to the age and former uses of many of the sites undergoing remediation. Given the ramifications of LDRs, the commenter argued, it may be more reasonable to create a presumption of treating the entire site as one "unit," even if remediation includes a series of operable units.

Some comments were received on EPA's statements on consolidating waste. One stated that consolidation of small amounts of waste across units should not be considered placement, because that will lead to less environmentally sound and less cost-effective solutions, particularly if LDRs are triggered. Another recommended that EPA should allow consolidation of small volumes of waste anywhere on-site, for purposes of storage or treatment, without triggering otherwise applicable RCRA standards. Another commenter requested clarification that consolidation within a unit included normal earthmoving and grading operations.

1. Actions constituting land disposal. EPA disagrees with commenters who considered EPA's interpretation of the definition of "land disposal" under RCRA section 3004(k) to be too narrow. These commenters argued that any movement of waste should be considered "placement" of waste, and thus "land disposal" under RCRA section 3004(k).

The definition of "land disposal" is central to determining whether the RCRA LDRs are applicable to a hazardous waste which is being managed as part of a CERCLA response action, or RCRA closure or corrective action. The term "land disposal" is defined under RCRA section 3004(k) as including, but not limited to, "any placement of [] hazardous waste in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, or underground mine or cave." The terms "landfill", "surface impoundment," and the others, refer to specific types of units defined under RCRA regulations. Thus, Congress generally defined the scope of the LDR program as the placement of hazardous waste in a land disposal unit, as those units are defined under RCRA regulations.

EPA has consistently interpreted the phrase "placement ... in" one of these land disposal units to mean the placement of hazardous wastes into one of these units, not the movement of waste within a unit. See e.g. 51 FR 40577 (Nov. 7, 1986) and 54 FR 41566-67 (October 10, 1989)(supplemental proposal of possible alternative interpretations of "land disposal"). EPA believes that its interpretation that the "placement...in" language refers to a transfer of waste into a unit (rather than simply any movement of waste) is not only consistent with a straightforward reading of section 3004(k), but also with the Congressional purpose behind the LDRs. The central concern of Congress in establishing the LDR program was to reduce or eliminate the practice of disposing of untreated hazardous waste at RCRA hazardous waste facilities. The primary aim of Congress was prospective rather than directed at already-disposed waste within a land disposal unit. See 51 FR 40577 (Nov. 7, 1986). Moreover, interpreting section 3004(k) to require application of the LDRs to any movement of waste could be difficult to implement and could interfere with necessary operations at an operating RCRA facility. For instance, when hazardous waste is disposed of in a land disposal unit at an operating RCRA facility, there may well be some "movement" of the waste already in the unit. Under the commenters' approach, such movement without pretreatment of the moved waste could be in violation of the LDRs. Thus, under the commenters' interpretation, virtually no operational activities could occur at any RCRA land disposal unit containing hazardous waste without pretreatment of any waste disturbed by the operation; clearly an infeasible approach.

EPA also believes that this interpretation of section 3004(k) is supported by the legislative history for this provision (see 129 Cong. Rec. H8139 (Oct. 6, 1983)(statement of Rep. Breaux)), and by the Congressional choice to define "land disposal" more narrowly for purposes of application of the LDRs than the already-existing term "disposal", which has a much broader meaning under RCRA. Under RCRA section 1004(3), the term "disposal" is very broadly defined and includes any "discharge, deposit, injection, dumping, spilling, leaking, or placing" of waste into or on any land or water. Thus, "disposal" (in a statutory, rather than the regulatory Subtitle C meaning of the term) would include virtually any movement of waste, whether within a unit or across a unit boundary. In fact, the RCRA definition of "disposal" has been interpreted by numerous courts to include passive leaking, where no active management is involved (see, e.g., U.S. v. Waste Industries, Inc., 734 F.2d 159 (4th Cir. 1984). However, Congress did not use the term "disposal" as its trigger for the RCRA land disposal restrictions, but instead specifically defined the new, and more narrow, term "land disposal" in section 3004(k). The broader "disposal" language continues to be applicable to RCRA provisions other than those in Subtitle C, such as section 7003. Thus, for the reasons outlined above, EPA believes that the existing interpretation, that movement of waste within a unit does not constitute "land disposal" for purposes of application of the RCRA LDRs, is reasonable.

With respect to the commenter who asked whether normal earthmoving and grading operations within a land disposal unit constitute "placement into the unit", under EPA's interpretation of RCRA section 3004(k), such activity would not be "placement into the unit" and thus the RCRA LDRs and other Subtitle C disposal requirements would not be applicable (nor would the requirement to obtain a permit under RCRA or minimum technology requirements in RCRA section 3004(o) apply).

Given this interpretation of section 3004(k), EPA does not believe that it is necessary to invoke ARAR waivers of LDRs for any movement of waste within a unit, which was the alternative suggested by the commenters. Nor does EPA believe that the widespread use of such waivers would be practical or desirable. 54 FR 41568-69 (October 10, 1989).

EPA also does not fully agree with the commenters who argued that the RCRA concept of "unit" does not apply to CERCLA sites.

The commenters who criticized the application of the RCRA "unit" to the CERCLA area of contamination for purposes of section 3004(k) believed it to be either too broad, allowing large areas to escape the LDRs, or too narrow, not allowing entire CERCLA sites to be considered a single "unit". In contrast to hazardous waste management units at a RCRA facility, CERCLA sites often do not involve discrete waste management units, but rather involve land areas on or in which there can be widespread areas of generally dispersed contamination. Thus, determining the boundaries of the RCRA land disposal "unit," for which section 3004(k) would require application of the LDRs at these sites, is not always self-evident.

EPA generally equates the CERCLA area of contamination with a single RCRA land-based unit, usually a landfill. 54 FR 41444 (December 21, 1988). The reason for this is that the RCRA regulatory definition of "landfill" is generally defined to mean a land disposal unit which does not meet the definition of any other land disposal unit, and thus is a general "catchall" regulatory definition for land disposal units. As a result, a RCRA "landfill" could include a non-discrete land area on or in which there is generally dispersed contamination. Thus, EPA believes that it is appropriate generally to consider CERCLA areas of contamination as a single RCRA land-based unit, or "landfill". However, since the definition of "landfill" would not include discrete, widely separated areas of contamination, the RCRA "unit" would not always encompass an entire CERCLA site.

Waste consolidation from different units or AOCs at a CERCLA site are subject to any applicable RCRA requirements regardless of the volume of the waste or the purpose of the consolidation. Thus, EPA disagrees with those commenters that asserted that small volumes of hazardous waste at a CERCLA site can be consolidated anywhere on-site for storage or treatment purposes without consideration of any applicable RCRA requirements. Such requirements may, however, be subject to ARAR waivers in appropriate circumstances.

The remaining comments received with respect to EPA's interpretation of section 3004(k) discussed the achievability of LDR cleanup levels, questioned the appropriateness of applying the LDRs to remedial actions, and requested more flexibility regarding the LDRs. These comments were the basis for EPA's supplemental notice and proposed reinterpretation of section 3004(k), which is discussed below.

In light of the numerous comments received on the interpretation of "land disposal" in RCRA section 3004(k), as it relates to removal, treatment, and redeposition of hazardous wastes generated by CERCLA and RCRA remedial and other activities, and in view of the important policy decisions that RCRA LDRs pose for the CERCLA and RCRA programs, EPA decided to separately and more fully discuss the issue, the interpretation outlined in the proposed NCP, and possible alternative interpretations of "land disposal". In a supplemental notice to the proposed NCP (54 FR 41566 (Oct. 10, 1989)), EPA outlined several technical, policy, and legal issues concerning LDR applicability to removal, treatment, and redeposition of hazardous wastes, and requested comment on two alternative interpretations of "land disposal". The first alternative would allow the excavation and replacement of previously disposed hazardous wastes in the same unit or area of contamination; since the same wastes would remain in the same unit, this activity would not constitute "land disposal". Under the second alternative, hazardous wastes could be excavated and redeposited either within the original unit or area of contamination, or elsewhere at the site in a new or existing unit. These interpretations would allow greater flexibility in remedial decision-making, in the context of both CERCLA actions and RCRA corrective actions and closures.

On November 6 and 7, 1989, EPA held a forum on contaminated soil and groundwater ("Contaminated Media Forum") to provide an opportunity for interested groups to further address these issues. The Contaminated Media Forum was attended by representatives from EPA, states, environmental groups, Congress, and the regulated community. A summary of the concerns raised and suggested solutions appears in the public docket for this rulemaking.

2. Selection of LDR treatment standards. Upon further examination, EPA believes that many of the problems discussed in the supplemental notice, and raised by commenters, result from treatment standards developed pursuant to the RCRA LDR program that are generally inappropriate or infeasible when applied to contaminated soil and debris. As discussed in the October 1989 notice, EPA's experience under CERCLA has been that treatment of large quantities of soil and debris containing relatively low levels of contamination using LDR "best demonstrated available technology" (BDAT) is often inappropriate. 54 FR 41567, 41568 (October 10, 1989). EPA noted that:

> Experience with the CERCLA program has shown that many sites will have large quantities -- in some cases, many thousands of cubic meters -- of soils that are contaminated with relatively low concentrations of hazardous wastes. These soils often should be treated, but treatment with the types of technologies that would meet the standard of BDAT may yield little if any environmental benefit over other treatment based remedial options.

54 FR 41568 (October 10, 1989). Examples of these and other situations reflecting EPA's experience concerning the inappropriateness of incinerating contaminated soil and debris are

included in the record for this rule. In addition, as discussed below, EPA has experienced problems in achieving the current non-combustion LDRs for contaminated soil and debris. Based on EPA's experience to date and the virtually unanimous comments supporting this conclusion, EPA has determined that, until specific standards for soils and debris are developed, current BDAT standards are generally inappropriate or unachievable for soil and debris from CERCLA response actions and RCRA corrective actions and closures. Instead, EPA presumes that, because contaminated soil and debris is significantly different from the wastes evaluated in establishing the BDAT standards, it cannot be treated in accordance with those standards and thus qualifies for a treatability variance from those standards under 40 CFR 268.44.

Accordingly, persons seeking a treatability variance from LDR treatment standards for contaminated soil and debris do not need to demonstrate on a case-by-case basis that BDAT standards for prohibited hazardous wastes are inappropriate or not achievable. As an alternative, persons seeking a treatability variance for soil and debris may meet the appropriate levels or percentage reductions in the currently available guidance (Superfund LDR Guidance #6A, "Obtaining a Soil and Debris Treatability Variance for Remedial Actions", EPA OSWER Directive 9347.3-06FS, July 1989). In the context of Superfund Records of Decision (ROD), this means that EPA will generally include such a variance in the proposed plan and ROD when treatment of contaminated soil and debris is an element of the remedial action. Further, EPA intends to issue guidance supplementing the Superfund Guidance #6A to expedite the processing of such treatability variances in conjunction with established remedy selection procedures.

Treatment standards for prohibited hazardous wastes are based on performance achievable by application of BDAT. 51 FR at 40578 (Nov. 7, 1986). BDAT, however, is not a technology-forcing program, nor does it always require the lowest possible levels of waste treatment achievable with any technology. See 130 Cong. Rec. S9178 (July 25, 1984) (Statement of Sen. Chaffee introducing the amendment that became RCRA section 3004(m)). Rather, what Congress contemplated is a scheme whereby hazardous wastes are to be treated using the technology (or technologies) generally considered to be suitable for the waste and that substantially diminish the toxicity of the waste or substantially reduce the likelihood of migration. Id.; see also H. Rep. No. 198, 98th Cong. 1st Sess. 33; S. Rep. No. 284, 98th Cong. 1st Sess. 16-17.

EPA's rules developing treatment standards likewise recognize that the treatment standards be based on appropriate technologies even if more stringent treatment methods are technically feasible. 51 FR at 40588-592 (Nov. 7, 1986). For example, EPA has generally based treatment standards for organic contaminants in wastewaters (normally defined as aqueous materials containing less than 1% total organic compound (TOC) and total suspended solids (TSS)) on technologies other than incineration (or other combustion), even though such organics could be treated to lower levels if the wastewaters were incinerated. This is because incineration (or other combustion) is not normally an appropriate technology for wastewaters, notwithstanding its capability of performing to lower levels than conventional wastewater treatment. More generally, EPA's rules on treatability variances recognize that prohibited wastes be treated by appropriate technologies. The rules thus state that a petitioner may request a treatability variance "where the treatment technology is not appropriate to the waste". 40 CFR 268.44(a).

Similarly, treatability variances are warranted where the applicable numerical treatment standard for the waste cannot be achieved. 40 CFR 268.44(a). For this reason, EPA has found that current BDAT standards based on noncombustion technology also warrant a treatability variance for soil and debris. The complex matrices often present in soil and debris may reduce the effectiveness of stabilization and other noncombustion technologies in treating these wastes. For example, the presence of oil and grease or sulfites in the mixture may substantially interfere with the stabilization process. More generally, stabilization is a complex treatment process and its application to unique soil and debris mixtures is not yet well understood. EPA's development of alternative treatment levels in the Superfund Guidance #6A noted above was based on available data for soil and debris mixtures and thus is more tailored with respect to achievability than the existing BDAT standards for these waste mixtures. The difference between these levels and the existing BDAT standards for these wastes demonstrates the feasibility of achieving the current BDAT standards for soil and debris. These alternative numbers thus support EPA's presumption that the BDAT standards are generally inappropriate or not achievable for soil and debris.

This presumption is supported by the commenters on the December, 1988 and October, 1989 proposals. EPA received numerous comments from a wide range of commenters discussing the inappropriateness or infeasibility of applying BDAT standards to contaminated soil and debris. The principal reason given for the inappropriateness of the current BDAT standards was the complexity of soil and debris mixtures and the interference with treatability caused by unique matrices of contaminants in the soil and debris. Moreover, commenters noted that wastestream-derived BDATs have not been fully demonstrated for many contaminated soils and debris and that the presence of trace quantities of one waste in soil and debris may inappropriately require use of a treatment method that would not otherwise be applicable to the other wastes present. These comments were further supported by comments made at the Contaminated Media Forum.

The Agency's experience also supports this conclusion of general inappropriateness or infeasibility of current BDAT standards for soil and debris. For example, as indicated above, EPA has developed alternative treatment levels for soil and debris in the Superfund #6A guidance which are based on the application of the specific treatment technologies to soil and debris, rather than industrial process wastes. Thus, these alternative levels, which are better tailored to the treatability of the complex soil and debris mixtures found at Superfund sites, reflect Agency experience concerning the inappropriateness or infeasibility of current BDAT for soil and debris.

EPA has long indicated its intention to develop separate treatment standards for contaminated soil and debris (without regard, incidentally, to the origin of such waste, so that the treatment standards would apply whether the soil and debris is generated from a CERCLA action or some other activity). 51 FR 40577 (Nov. 7, 1986). Although the Agency has already expended considerable effort on such standards, it has not been able to propose or promulgate regulations because of the more pressing need to implement the rest of the land disposal prohibition statutory provisions before the various statutory deadlines. See RCRA sections 3004(d), (e), and (g). EPA does not expect that the same level of treatment performance will be required for soil and debris as for industrial process wastes.

In the interim period until EPA promulgates these treatment standards, contaminated soil and debris are subject to the same treatment standards as the prohibited hazardous wastes that they contain, unless a variance is appropriate and is approved according to 40 CFR 268.44. 53 FR at 31146-149 (Aug. 17, 1988) and Chemical Waste Management v. EPA, 869 F.2d 1526, 1535-46, 1538-40 (D.C. Cir. 1989). Where standards for the underlying waste are based on the performance of incineration, EPA has granted national capacity variances for the contaminated soils and debris because there is insufficient national capacity to treat these wastes. 40 CFR 268.30(c), 268.31(a)(1), 268.32(d)(1), 268.33(b), and 268.34(d). Where BDAT treatment standards are in effect, it is possible to petition for a treatability variance based on the inappropriateness of the BDAT standards to treat the contaminated soil and debris. 40 CFR 268.44(a). As discussed earlier, EPA believes that it is unnecessary for petitioners (or the lead Agency in CERCLA response actions) to make site-specific demonstrations that BDAT standards are inappropriate for contaminated soil and debris.

The numerous comments and Agency experience supporting a presumption that the BDAT standards are inappropriate or not achievable is clearly warranted at this time because the criteria in 40 CFR 268.44 for treatability variances are generally met for soil and debris. As a result, under EPA's established treatability variance procedures (40 CFR 268.44), variance applications for contaminated soil and debris do not need to demonstrate that the physical and chemical properties differ significantly from wastes analyzed in developing the treatment standard and that, therefore, the waste cannot be treated to specified levels or by specified methods. Petitions need only focus on justifying the proposed alternative levels of performance, using existing interim guidance containing suggested treatment levels for soil and debris (Superfund LDR Guidance #6A, "Obtaining a Soil and Debris Treatability Variance for Remedial Actions", EPA OSWER Directive 9347.3-06FS, July 1989)) as a benchmark.

Although the presumption is that BDAT standards are not appropriate for soil and debris, there may be special circumstances where EPA determines that the existing BDAT standards are appropriate for contaminated soils and debris at a particular site, such as where high levels of combustible organics in soil are present. In these circumstances, the Agency would make a determination that treatment to the BDAT standards was appropriate and would require such treatment.

EPA regulations provide that treatability variances may be issued on a site-specific basis. 40 CFR 268.44(h).[22] Thus, they

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[22] In light of today's determination, the application of this rule requires clarification in two respects. First, although EPA is today establishing a general presumption that BDAT standards are inappropriate or not achievable for treating soil and debris, the Agency does not believe that this presumption triggers the rulemaking variance procedures in 40 CFR 268.44(a). Even with the presumption, treatment levels will be determined on a case-by-case basis, and commenters may submit information contending that the presumption is not applicable in a particular case. Thus, it is EPA's view that the site-specific, non-rulemaking procedures in 40 CFR 268.44(h) are entirely appropriate. See 53 FR 31199-31200 (August 17, 1988).

Second, EPA does not interpret its site specific variance procedures as invariably requiring applicants to demonstrate that they cannot meet applicable treatment levels or methods. The first sentence of 40 CFR 268.44(h) makes it clear that an applicant may make one of two demonstrations to qualify for a variance: he may show either that he cannot meet a treatment standard, or that a treatment method (or the method underlying the standard is inappropriate for his waste. The final sentence of may be approved simultaneously with the issuance of a RCRA permit, the approval of a RCRA closure plan, or the selection of a remedy in a CERCLA response action in the ROD. In the case of an on-site CERCLA response action, the procedural requirements of the variance process do not apply. See CERCLA section 121(e)(1) and 121(d)(2). The variance decision will be made as part of EPA's remedy selection process, during which data justifying alternative treatment levels will be included in the administrative record files, and public participation opportunities and Agency response to comment will be afforded as appropriate under this rule.

In EPA's view, the Agency's determination that the BDAT standards are generally inappropriate for contaminated soil and debris addresses many of the practical concerns raised by commenters in the supplemental notice on the Agency's interpretation of the term "land disposal". For this reason, and because EPA has had insufficient time to review and evaluate the many lengthy and complex issues raised by commenters on the supplemental notice, EPA is deferring any final decision to modify that interpretation. (EPA will respond to comments on the alternatives in the supplemental notice when the Agency makes a final decision on the proposed reinterpretation of land disposal). Until a final decision is made, the interpretation announced in the preamble to the proposed NCP and discussed in Part A above will remain in effect.

Final rule: There is no rule language on this issue.

Name: **Determination of whether a waste is a hazardous waste.**

Proposed rule: The preamble to the proposed rule discussed how to determine whether hazardous waste regulated under RCRA Subtitle C was present at a site (53 FR 51444).

Response to comments: Some commenters raised questions about EPA's discussion about determining whether a waste exhibits a hazardous characteristic. One argued that EPA cannot assume a waste is not a characteristic waste in the absence of testing and should therefore adopt a liberal and inclusive approach to determining whether RCRA applies to avoid expensive and time-consuming testing. Another commenter asked for clarification on who was responsible for applying "process knowledge" to determine whether a waste was a hazardous waste in the absence of testing. The commenter asserted that, under RCRA, EPA exercises

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268.44(h), identifying the showing an applicant must include in his variance application, on its terms applies only to applications submitted under the first criterion. EPA's presumption, however, applies to soil and debris regardless of which of the two types of variances apply.

prosecutorial discretion if a generator, acting in good faith, decides incorrectly that his waste is not hazardous. EPA notes that when it determines that there is a violation there will normally be some kind of enforcement action taken; the level and type of prosecutorial response will depend on a number of factors, for example, the size of the company, the significance of the violation, the intent, etc.

Under RCRA rules, a generator is not required to test, but may use knowledge of the waste and its constituents to judge whether the waste exhibits a characteristic. (See 40 CFR 262.11(c).) EPA believes this should also apply if the lead agency or PRP at a CERCLA site is the "generator." EPA wants to make clear, however, that a decision that a waste is not characteristic in the absence of testing may not be arbitrary, but must be based on site-specific information and data collected on the constituents and their concentrations during investigations of the site. Based on site data, it will be very clear in some cases that a waste cannot be characteristic; for example, if a waste does not contain a constituent regulated as EP toxic, a decision that the waste does not exhibit this characteristic can reliably be made without testing for EP toxicity. EPA does not expect to undertake testing when it can otherwise be determined with reasonable certainty whether or not the waste will exhibit a characteristic.

In response to the second concern, the determination whether a waste is a hazardous waste may be made by EPA, the state, or a PRP, depending on the nature of the action. EPA will take any necessary or appropriate action if decisions about the hazardous nature of the waste are in error or are made without proper basis.

Several commenters discussed the question of whether RCRA requirements can be applicable to RCRA hazardous waste disposed of before the RCRA requirements went into effect in 1980. One commenter argued that they could not be, unless the waste exhibited a characteristic at the time of the CERCLA action. However, as one commenter noted, EPA has consistently maintained in enforcement actions that RCRA requirements apply to any waste materials disposed of prior to 1980 when those materials are managed or disposed of today. EPA agrees with this latter comment and believes that this policy applies to CERCLA actions as well. This was also upheld in a recent D.C. Court of Appeals decision, Chemical Waste Management v. EPA, 869 F.2d 1526 (D.C. Cir. 1989). RCRA requirements can apply when the CERCLA action constitutes treatment, storage or disposal of RCRA hazardous waste. Note that RCRA requirements may also be relevant and appropriate to pre-1980 waste.

One commenter suggested that EPA allow consolidation, for purposes of storage or treatment, of small volumes of wastes without triggering RCRA standards. In response, while EPA appreciates the concerns with meeting substantive storage and treatment requirements for small amounts of waste, EPA believes that waste should be managed according to standards when those standards are ARARs unless a waiver (such as for interim measures) can be justified. It should be noted that RCRA may not be applicable for small quantity generators, as defined under RCRA; however, a determination would still have to be made about whether any RCRA requirements would be relevant and appropriate to small quantities.

Final rule: There is no rule language on this issue.

Name: When RCRA requirements are relevant and appropriate to CERCLA actions.

Proposed rule: The preamble to proposed 300.400(g)(2)(i), identification of applicable or relevant and appropriate requirements, criteria for relevant and appropriate, stated that RCRA requirements may be relevant and appropriate when a waste is similar in composition to a RCRA listed waste (53 FR 51446).

Response to comments: 1. RCRA requirements as relevant and appropriate for wastes similar to RCRA hazardous waste. Several commenters expressed concern that RCRA requirements may be potentially relevant and appropriate for waste that is not a RCRA hazardous waste, but is similar to a RCRA hazardous waste. Commenters argued that virtually any waste or CERCLA substance is similar to a RCRA hazardous waste in some way, either in chemical composition, in toxicity, in mobility, or in persistence, and were concerned that this policy represented an enormous expansion of the RCRA program.

EPA believes that RCRA requirements can potentially be relevant and appropriate to wastes other than those that are known to be hazardous waste. For example, some information or records must be available that identify the source of the waste in order to determine that the waste is a listed hazardous waste. As a result, two separate wastes could be identical in composition, but only one identified as a RCRA hazardous waste because manifests are available that identify it as a listed waste. RCRA requirements would be applicable for the manifested waste, but not for the other, even though the two wastes are physically the same. EPA believes that RCRA requirements can be potentially relevant and appropriate when the waste cannot be definitively identified as a listed hazardous waste.

EPA wants to emphasize, however, that a number of the factors identified in § 300.400(g)(2) should be considered in determining whether a RCRA requirement is relevant and appropriate. The similarity of the waste to RCRA hazardous waste or the presence of a RCRA constituent alone does not create a presumption that a RCRA requirement will be relevant and appropriate. Nor is it always necessary or useful to conduct an in-depth, constituent-by-constituent comparison of a CERCLA waste with RCRA hazardous wastes, because most RCRA requirements are the same regardless of the specific composition of the hazardous waste. Indeed, the statute requires attainment of those requirements that are relevant and appropriate under the circumstances of the release. Thus, the decision about whether a RCRA requirement is relevant and appropriate is based on consideration of a variety of factors, including the nature of the waste and its hazardous properties, other site characteristics, and the nature of the requirement itself.

EPA anticipates that it will often find some RCRA requirements to be relevant and appropriate at a site and others not, even for the same waste. This is because certain waste characteristics shared with RCRA hazardous wastes may be more important than others when evaluating whether a given requirement is relevant and appropriate. For example, the mobility of the waste, among other factors, may be a key concern in evaluating whether the RCRA requirement that the cap used in closing a landfill be less permeable than the bottom liner (40 CFR 264.310(a)(5)) is relevant and appropriate. Other properties of the waste might be more important in evaluating the relevance and appropriateness of other RCRA requirements.

2. RCRA requirements as relevant and appropriate for mining wastes. Several commenters asked EPA to state in the NCP or its preamble that RCRA Subtitle C requirements will not be relevant and appropriate to mining wastes. They noted that, recognizing the unique characteristics of mining wastes, Congress exempted certain mining wastes from regulation as hazardous wastes under RCRA until EPA completed studies on these wastes to determine specifically whether such regulation was appropriate. On July 3, 1986, EPA published its determination for beneficiation and extraction wastes which found that regulation under Subtitle C was not warranted for these wastes, because EPA believes such requirements, "...if universally applied, would be either unnecessary to protect human health and the environment, technically infeasible, or economically impracticable to implement." (51 FR 24496.) The commenters argue, therefore, that Subtitle C requirements, which are not legally applicable to these mining wastes, also cannot be relevant and appropriate, since EPA has formally made the determination that these requirements are not appropriate for such wastes.

The commenters emphasized that mining waste sites differ in a number of ways from industrial wastes sites. They argue that mining wastes are of enormous volume and generally of lower toxicity, that the sites typically cover extremely large areas and may present less hazard because they tend to be in drier climates, reducing leaching potential, or contain constituents that are less mobile. For these reasons, which formed the basis of EPA's decision under RCRA, RCRA requirements would not be relevant and appropriate for mining sites remediated under CERCLA. Commenters requested that EPA give guidance specifically in the NCP to ensure consistent decisions on ARARs at mining sites.

EPA agrees that RCRA requirements for hazardous waste will not be applicable to those mining wastes excluded from regulation by the statute. (Note, however, that EPA has recently removed certain mineral processing wastes from the mining waste exclusion, making them subject to Subtitle C, 54 FR 36592, September 1, 1989; 55 FR 2322, January 23, 1990. EPA has also promulgated regulations listing certain wastes from mineral processing operations as hazardous, 53 FR 35412, September 13, 1988.) In addition, EPA agrees that RCRA Subtitle C requirements will generally not be relevant and appropriate for those mining wastes for which EPA has specifically determined that such regulation is not warranted. The reason is that the factors that caused EPA not to regulate these wastes as hazardous include many of the same factors that EPA considers in judging whether a requirement is relevant and appropriate at a particular site.

However, EPA does not agree that RCRA requirements for hazardous waste can never be relevant and appropriate for CERCLA remediation of mining sites. In its determination for beneficiation and extraction wastes, EPA found that, "if universally applied," Subtitle C requirements would not be appropriate for mining wastes. (51 FR 24500.) However, a decision about whether a requirement is relevant and appropriate is made on a case-by-case basis, based on the specific characteristics of the site and the release. There may be some sites where the site circumstances differ significantly from those which caused EPA to decide that Subtitle C regulation is not warranted and where certain requirements are appropriate and well-suited to the site or portions of the site. In such a situation, some RCRA requirements may be relevant and appropriate.

EPA is developing regulations under Subtitle D of RCRA designed specifically for mining wastes that will not be regulated as hazardous waste. When promulgated, these regulations are likely to be either applicable or relevant and appropriate for remediation of mining sites.

Another commenter stated that EPA needs to develop a long-term initiative to simplify the use of RCRA ARARs. EPA recognizes that the interaction between the two laws can be very complicated and continues to work to resolve and give guidance on issues involving CERCLA compliance with RCRA laws.

Final rule: There is no rule language on this issue.

Name: **Examples of potential federal and state ARARs and TBCs.**

Potential ARARs and TBCs include, but are not limited to, the following:

1. Federal requirements which may be potential applicable or relevant and appropriate requirements.

i. EPA's Office of Solid Waste administers, inter alia, the Resource Conservation and Recovery Act of 1976, as amended, (42 U.S.C. 6901). Potentially applicable or relevant and appropriate requirements pursuant to that Act are:

a. Open Dump Criteria -- Pursuant to RCRA Subtitle D criteria for classification of solid waste disposal facilities (40 CFR Part 257).
Note: Only relevant to nonhazardous wastes.

b. RCRA Subtitle C requirements governing standards for owners and operators of hazardous waste treatment, storage, and disposal facilities: (40 CFR Part 264, for permitted facilities, and 40 CFR Part 265, for interim status facilities):

(1) Ground-Water Protection and Monitoring (40 CFR 264.90-264.109).
(2) Closure and Post Closure (40 CFR 264.110-264.120).
(3) Containers (40 CFR 264.170-264.178).
(4) Tanks (40 CFR 264.190-264.199).
(5) Surface Impoundments (40 CFR 264.220-264.249).
(6) Waste Piles (40 CFR 264.250-264.269).
(7) Land Treatment (40 CFR 264.270-264.299).
(8) Landfills (40 CFR 264.300-264.339).
(9) Incinerators (40 CFR 264.340-264.999).
(10) Land Disposal Restrictions (40 CFR 268.1-268.50).
(11) Dioxin-containing wastes (50 FR 1978).
(12) Standards of performance for storage vessels for petroleum liquids (40 CFR Part 60, Subparts K and K(a)).
(13) Codification rule for 1984 RCRA amendments (50 FR 28702, July 15, 1985; 52 FR 45788, December 1, 1987).

ii. EPA's Office of Water administers several potentially applicable or relevant and appropriate statutes and regulations issued thereunder:

a. Section 14.2 of the Public Health Service Act as amended by the Safe Drinking Water Act, as amended, (42 U.S.C. 300(f)).

(1) Maximum Contaminant Levels (for all sources of drinking water exposure). (40 CFR 141.11-141.16).
(2) Maximum Contaminant Level Goals (40 CFR 141.50-141.52, 50 FR 46936).
(3) Underground Injection Control Regulations (40 CFR Parts 144, 145, 146, 147).

b. Clean Water Act, as amended, (33 U.S.C. 1251).

(1) Requirements established pursuant to sections 301, 302, 303 (including state water quality standards), 304, 306, 307, (including federal pretreatment requirements for discharge into a publicly owned treatment works), 308, 402, 403 and 404 of the Clean Water Act. (33 CFR Parts 320-330, 40 CFR Parts 122, 123, 125, 131, 230, 231, 233, 400-469).
(2) Available federal water quality criteria documents are listed at 45 FR 79318, November 28, 1980; 49 FR 5831, February 15, 1984; 50 FR 30784, July 29, 1985; 51 FR 8012, March 7, 1986; 51 FR 22978, June 28, 1986; 51 FR 43665, December 3, 1986; 52 FR 6213, March 2, 1987; 53 FR 177, January 5, 1988; 53 FR 19028, May 26, 1988; 53 FR 33177, August 30, 1988; 54 FR 19227, May 4, 1989.
(3) Clean Water Act section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material (40 CFR Part 230).
(4) Procedures for Denial or Restriction of Disposal Sites for Dredged Material (Clean Water Act section 404(c) Procedures, 33 CFR Parts 320-330, 40 CFR Part 231).

c. Marine Protection, Research, and Sanctuaries Act (33 U.S.C. 1401).

(1) Incineration at sea requirements (40 CFR Parts 220-225, 227-229. See also 40 CFR 125.120-125.124).

iii. EPA's Office of Pesticides and Toxic Substances administers the Toxic Substances Control Act (15 U.S.C. 2601). Potentially applicable or relevant and appropriate requirements pursuant to that Act are:

PCB requirements generally: 40 CFR Part 761; Manufacturing, Processing, Distribution in Commerce, and Use of PCBs and PCB Items (40 CFR 761.20-761.30); Markings of PCBs and PCB Items (40 CFR 761.40-761.45); Storage and Disposal (40 CFR 761.60-761.79); Records and Reports (40 CFR 761.180-761.185, 761.187 and 761.193). See also 40 CFR 129.105, 750.

iv. EPA's Office of External Affairs administers potentially applicable or relevant and appropriate requirements regarding requirements for floodplains and wetlands (40 CFR Part 6, Appendix A).

v. EPA's Office of Air and Radiation administers several potentially applicable or relevant and appropriate statutes and regulations issued thereunder:

a. The Uranium Mill Tailings Radiation Control Act of 1978 (42 U.S.C. 2022) and Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings (40 CFR Part 192).

b. Clean Air Act (42 U.S.C. 7401).

  (1) National Primary and Secondary Ambient Air Quality Standards (40 CFR Part 50).
  (2) Standards for Protection Against Radiation (10 CFR Part 20). See also 10 CFR Parts 10, 40, 60, 61, 72, 960, 961.
  (3) National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61). See also 40 CFR 427.110-427.116, 763.
  (4) New source performance standards (40 CFR Part 60).

vi. Other Federal Requirements:

a. National Historic Preservation Act (16 U.S.C. 470). Compliance with NHPA required pursuant to 7 CFR Part 650. Protection of Archaeological Resources: Uniform Regulations -- Department of Defense (32 CFR Part 229), Department of the Interior (43 CFR Part 7).

b. D.O.T. Rules for the Transportation of Hazardous Materials, 49 CFR Parts 107, 171, 172.

c. The following requirements are also potentially ARAR:

  (1) Endangered Species Act of 1973 (16 U.S.C. 1531). Generally, 50 CFR Parts 81, 225, 402.
  (2) Wild and Scenic Rivers Act (16 U.S.C. 1271).
  (3) Fish and Wildlife Coordination Act (16 U.S.C. 661).
  (4) Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136) 40 CFR Part 165.
  (5) Wilderness Act (16 U.S.C. 1131).
  (6) Coastal Barriers Resources Act (16 U.S.C. 3501).
  (7) Surface Mining Control and Reclamation Act (30 U.S.C. 1201).

(8) Coastal Zone Management Act of 1972 (16 U.S.C. 1451). Generally, 15 CFR Part 930 and 15 CFR 923.45 for Air and Water Pollution Control Requirements.
(9) Magnuson Fishery Conservation and Management Act (16 U.S.C. § 1801 et seq.).
(10) Marine Mammal Protection Act (16 U.S.C. § 1361 et seq.).

2. Examples of potential state ARARs.

i. State requirements for disposal and transport of radioactive wastes.

ii. State approval of water supply system additions or developments.

iii. State ground-water withdrawal approvals.

iv. Requirements of authorized (Subtitle C of RCRA) state hazardous waste programs.

v. State Implementation Plans (SIPs) and delegated programs under the Clean Air Act.

vi. Approved state NPDES program under the Clean Water Act.

vii. Approved state underground injection control (UIC) programs under the Safe Drinking Water Act.

viii. Approved state wellhead protection programs.

ix. State water quality standards.

x. State air toxics regulations.

3. Other federal criteria, advisories, and guidance, to be considered.

i. Federal Criteria, Advisories, and Procedures.

a. Health Effects Assessments (HEAs) and Proposed HEAs ("Health Effects Assessment Summary Tables," updated quarterly).

b. Reference Doses (RfDs)("Health Effects Assessment Summary Tables," updated quarterly, or "Integrated Risk Information System (IRIS)," updated monthly).

c. Slope Factors for Carcinogens ("Health Effects Assessment Summary Tables," updated quarterly, or

"Integrated Risk Information System (IRIS)," updated monthly.

d. Pesticide registrations and registration data.

e. Pesticide and food additive tolerances and action levels. Note: Germane portions of tolerances and action levels may be pertinent and therefore are to be considered in certain situations.

f. PCB Spill Cleanup Policy (52 FR 10688, April 2, 1987).

g. Waste load allocation procedures. (40 CFR Parts 125, 130).

h. Federal sole source aquifer requirements (52 FR 6873, March 5, 1987).

i. Public health basis for the decision to list pollutants as hazardous under section 112 of the Clean Air Act.

j. EPA's Ground-Water Protection Strategy.

k. Guidance on Remedial Actions for Contaminated Ground Water at Superfund sites (Draft, October 1986) establishes criteria for the use of background concentrations and ACLs.

l. Superfund Public Health Evaluation Manual.

m. TSCA health data.

n. TSCA chemical advisories.

o. ATSDR Toxicological Profiles.

p. Advisories issued by FWS and NWFS under the Fish and Wildlife Coordination Act.

q. TSCA Compliance Program Policy, ("TSCA Enforcement Guidance Manual Policy Compendium," USEPA, OECM, OPTS, March 1985).

r. Health Advisories, EPA Office of Water.

s. EPA/DOT Guidance Manual on Hazardous Waste Transportation.

ii. USEPA RCRA Guidance Documents.

a. Alternate Concentration Limits (ACL) Guidance (draft).

b. EPA's RCRA Design Guidelines

(1) Surface Impoundments -- Liner Systems, Final Cover, and Freeboard Control.
(2) Waste Pile Design -- Liner Systems.
(3) Land Treatment Units.
(4) Landfill Design -- Liner Systems and Final Cover.

c. Permitting Guidance Manuals.

(1) Permit Applicant's Guidance Manual for Hazardous Waste Land Treatment, Storage, and Disposal Facilities.
(2) Permit Applicant's Guidance Manual for the General Facility Standards of 40 CFR 264.
(3) Permit Writer's Guidance Manual for Hazardous Waste Land Treatment, Storage, and Disposal Facilities.
(4) Permit Writer's Guidance Manual for the Location of Hazardous Waste Land Storage and Disposal Facilities: Phase I, Criteria for Location Acceptability and Existing Regulations for Evaluating Locations.
(5) Permit Writer's Guidance Manual for Subpart F.
(6) Permit Applicant's Guidance Manual for the General Facility Standards.
(7) Waste Analysis Plan Guidance Manual.
(8) Permit Writer's Guidance Manual for Hazardous Waste Tanks.
(9) Model Permit Application for Existing Incinerators.
(10) Guidance Manual for Evaluating Permit Applications for the Operation of Hazardous Waste Incinerator Units.
(11) A Guide for Preparing RCRA Permit Applications for Existing Storage Facilities.
(12) Guidance Manual on Closure and Post-Closure Interim Status Standards.

d. Technical Resource Documents (TRDs).

(1) RCRA Ground-Water Monitoring Technical Enforcement Guidance Document.
(2) Evaluating Cover Systems for Solid and Hazardous Waste.
(3) Hydrologic Simulation of Solid Waste Disposal Sites.
(4) Landfill and Surface Impoundment Performance Evaluation.
(5) Lining of Water Impoundment and Disposal Facilities.
(6) Management of Hazardous Waste Leachate.
(7) Guide to the Disposal of Chemically Stabilized and Solidified Waste.
(8) Closure of Hazardous Waste Surface Impoundments.
(9) Hazardous Waste Land Treatment.

(10) Soil Properties, Classification, and Hydraulic Conductivity Testing.

e. Test Methods for Evaluating Solid Waste.

(1) Solid Waste Leaching Procedure Manual.
(2) Methods for the Prediction of Leachate Plume Migration and Mixing.
(3) Hydrologic Evaluation of Landfill Performance (HELP) Model Hydrologic Simulation and Solid Waste Disposal Sites.
(4) Procedures for Modeling Flow Through Clay Liners to Determine Required Liner Thickness.
(5) Test Methods for Evaluating Solid Wastes.
(6) A Method for Determining the Compatability of Hazardous Wastes.
(7) Guidance Manual on Hazardous Waste Compatability.

iii. USEPA Office of Water Guidance Documents.

a. Pretreatment Guidance Documents.

(1) 304(g) Guidance Document on Revised Pretreatment Guidelines (3 volumes).

b. Water Quality Guidance Documents.

(1) Ecological Evaluation of Proposed Discharge of Dredged Material into Ocean Waters (1977).
(2) Technical Support Manual: Waterbody Surveys and Assessments for Conducting Use Attainability Analyses (1983).
(3) Water-Related Environmental Fate of 129 Priority Pollutants (1979).
(4) Water Quality Standards Handbook (1983).
(5) Technical Support Document for Water Quality-Based Toxics Control.
(6) Developing Requirements for Direct and Indirect Discharges of CERCLA Wastewater (1987).

c. NPDES Guidance Documents.

(1) NPDES Best Management Practices Guidance Manual (June 1981).
(2) Case studies on toxicity reduction evaluation (May 1983).

d. Ground Water/UIC Guidance Documents.

(1) Designation of a USDW.
(2) Elements of Aquifer Identification.
(3) Definition of major facilities.

- (4) Corrective action requirements.
- (5) Requirements applicable to wells injecting into, through, or above an aquifer that has been exempted pursuant to 40 CFR 146.104(b)(4).
- (6) Guidance for UIC implementation on Indian lands.

e. Clean Water Act Guidance Documents.

f. Guidance for Applicants for State Well Head Protection Program Assistance Funds under the Safe Drinking Water Act (Office of Ground-Water Protection, June 1987).

iv. USEPA Manuals from the Office of Research and Development.

a. EW 846 methods -- laboratory analytic methods.

b. Lab protocols developed pursuant to Clean Water Act section 304(h).

v. Other.

a. Data Quality Objectives, Volumes I and II.

b. Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA (Draft).

c. Guidance on Preparing Superfund Decision Document: The Proposed Plan and Record of Decision (Draft).

d. Standard Operating Safety Guides.

COMMUNITY RELATIONS

Name: Sections 300.430(c), 300.430(f)(2), (3) and (6). Community relations during RI/FS and selection of remedy.

Existing rule: Sections 300.67(a) and (c) require the lead agency to develop and implement a community relations plan (CRP) at NPL sites prior to initiation of field activities. In the case of removal actions or other short-term actions, § 300.67(b) requires that a spokesperson be designated and a CRP prepared if the action exceeds 45 days. Section 300.67(d) states that the lead agency must provide the public with not less than 21 calendar days to review and comment on the feasibility study (FS). Public meetings should be held during the comment period and the lead agency may also provide the public with an opportunity to comment during the development of the FS. A document summarizing major issues raised by the public is required by § 300.67(e). The summary must include how the issues are addressed. Section 300.67(f) indicates that in enforcement actions, the CRP and public review of the FS may be modified or adjusted at the direction of the court. Section 300.67(g) states that when responsible parties implement site remedies, the lead agency shall provide public notice and a 30-day comment period. In addition, a document summarizing the major issues raised by the public and how they are addressed must be prepared.

Proposed rule: In the 1986 amendments to CERCLA, Congress added a new section 117 to provide for involvement by the public in Superfund decision-making. The NCP incorporates these new statutory requirements and those in existing policy, as well as several additional requirements based on program experience.

Proposed § 300.430(c) requires the lead agency, to the extent practicable prior to commencing field work for the remedial investigation (RI), to conduct community interviews, prepare a formal CRP, and to establish a local information repository. Section 300.430(f) requires that a proposed plan be prepared. After preparation of the proposed plan, § 300.430(f)(2) requires the lead agency to publish a notice of availability and brief analysis of the proposed plan, make the proposed plan available in the administrative record, provide a public comment period of not less than 30 calendar days on the proposed plan and supporting analysis and information, including the RI/FS, provide an opportunity for a public meeting, keep a transcript of the public meeting and make it available to the public, prepare a written summary of significant comments submitted along with the lead agency response, and make the summary available with the record of decision (ROD). When the ROD is signed, § 300.430(f)(5) (§ 300.430(f)(6) in the final rule) requires the lead agency to publish a notice of availability and make the ROD available for public inspection prior to the start of remedial action. Section

300.815(a) requires the lead agency to make the administrative record file available for public inspection when the RI begins.

General discussion: CERCLA establishes the basic framework for community relations activities during response actions. Consistent with the flexibility provided by CERCLA and to allow public participation activities to be tailored to site-specific circumstances, the NCP specifies the minimum level of public involvement but does not preclude the lead agency from undertaking additional public involvement activities where appropriate. EPA has implemented a variety of additional public involvement activities at Superfund sites over the past nine years that have proven helpful to affected communities in understanding and participating in response action decision-making.

Shortly after the completion of the public comment period on the proposed NCP last year, EPA issued "A Management Review of the Superfund Program," William K. Reilly, Administrator, U.S. Environmental Protection Agency. One aspect of the study was community involvement. The study includes a series of recommendations, some of which reinforce existing practices while others present new ideas. Many specific recommendations in this report are consistent with requirements in the final rule. Other ideas discussed in the management review are highlighted in today's preamble as further examples of good program practice that encourage public involvement.

Public participation and involvement is also a major focus of administrative record requirements under Subpart I. Requirements and recommendations on Subparts E and I on public participation interrelate to a large degree. Therefore, there is some discussion in this section of today's preamble on the administrative record.

Response to comments: Many comments were received on the community relations requirements in the NCP. Some commenters addressed the organization of community relations requirements in the proposed NCP. One commenter supported the reorganization of community relations requirements with the actions to which they apply. Another commenter stated that the requirements should be in a separate subpart with subsections corresponding to the phases of the process.

EPA disagrees that community relations should be in a separate subpart. EPA purposely reorganized the placement of community relations requirements in order to ensure a clearer and more orderly integration of community relations into each appropriate phase of the Superfund process.

Several commenters recommended increased opportunities for public participation, while one commenter suggested that the proposed community relations procedures that exceed those required by CERCLA may hinder timely cleanup efforts. The commenters recommending increased participation asserted that the NCP should specify formal public involvement throughout the entire process, beginning with notification to communities at the preliminary assessment/site inspection (PA/SI) stage and continuing through site closure and deletion. A commenter stated that the Superfund process should include regular input from the community and another commenter suggested that the public should be informed about the project and any problems that may arise in the short and long term. Several commenters stated that investigators should use citizens as a source of information about sites in their communities.

In response, EPA does not agree that the proposed community relations requirements will hinder timely cleanups because such requirements have been carefully integrated into the response process so as not to interfere with other activities necessary for cleanup. EPA encourages the lead agency to involve the interested public through all stages of the cleanup process and to be responsive to the communications needs of communities near Superfund sites. It is EPA's experience, however, that not all communities desire or request a multitude of public involvement activities. Moreover the degree of appropriate involvement will vary with the characteristics of the site and the nature of the response. Therefore, EPA believes that it is inappropriate to specify in a general rule, such as the NCP, a detailed regimen of all potential public involvement activities that may be appropriate or desirable in certain situations. Thus, EPA believes that the provisions in the NCP which incorporate statutory requirements and basic community relations activities which EPA has found through experience to be necessary, establish adequate minimum public involvement requirements for all Superfund sites.

If, however, members of a community desire more opportunities for participation or involvement than specified in the NCP, for example, public involvement activities as early as the PA/SI stage, they may request that the lead agency conduct such activities. Informal contact with interested community members and local officials during the early stages of the response process may be desirable, for example, in communities where it is suspected that the site presents a high risk to the population or where there is significant citizen interest. A mailing list of interested community members could be compiled at this stage as necessary to implement public involvement activities. Moreover, a fact sheet could be prepared during the SI to explain the purpose of the SI and its possible outcomes.

EPA agrees that interviews of residents of the community can be a major source of information about conditions at and the history of a site. Through such interviews, the lead Agency can also identify community-specific interests and concerns and may also gather information helpful in identifying PRPs. The NCP includes community interviews as part of the public involvement activities to be conducted at Superfund sites.

Another commenter suggested that the public should be involved through meetings and comment periods before the proposed plan is issued. One commenter suggested that the lead agency be required to hold a public meeting on the work plan for the RI and that the community should be allowed to review the RI report. The commenter further suggested that written responsiveness summaries be prepared by the lead agency for the comments raised at the public meeting on the RI. Another commenter felt that the public should receive more education about the ramifications of investigation results. In addition, a commenter asserted that information on risk should be included in RI/FS reports and should be explained to the public.

The NCP provides one formal comment period on the proposed response action at all sites (except certain time-critical removals). In addition, the administrative record is available for public review prior to, and following, the formal comment period. While EPA agrees that additional comment periods and meetings, both formal and informal, may be appropriate and desirable at certain sites, decisions on what type of additional formal public involvement activities are warranted must be made on a site-specific basis, and thus are not mandated in the NCP. If a person needs more information about a site, he/she may, at any time in the remedial process, review the ongoing compilation of documents in the administrative record file or request that the lead agency conduct a public briefing or workshop in addition to that required by the NCP. EPA may conduct a public briefing on the RI work plan or provide some other type of public information meeting when there is sufficient public interest. EPA encourages all lead agencies to consider such activities. Similarly, if a person needs more explanation concerning the RI and risk assessment and ramifications associated with them (a description of the risk posed by a site generally is included in the RI report), he/she can request that the lead agency conduct a public briefing. Lead agencies are encouraged but not required to prepare a responsiveness summary for any comments submitted outside of formal comment periods.

Several commenters addressed the development of CRPs. One commenter argued that the start of community interviews should be publicized and should include mention of the availability of technical assistance grants (TAGs). Another commenter objected to the limited, nonsubstantive nature of community interviews. Other commenters said there should be more community involvement in developing CRPs and that they should be a "two-way communications tool", rather than a "one-way dialogue" or "sell job" from the agency to the community. Additional commenters suggested that the community should review drafts of the CRP.

EPA does not agree that the lead agency must publish a notice in a newspaper on the initiation of community interviews. The lead agency generally will give notice to key community leaders that interviews are being conducted. Every effort is made to obtain a broad representation of the community in selecting individuals to interview and additional names may be gathered during the interview process. The NCP identifies local officials, community residents, public interest groups, or other interested or affected parties as individuals to interview, but this is not meant to be an all inclusive list. EPA believes that any and all interested parties are potential interviewees. EPA has added the requirement that the lead agency inform the members of the community of the availability of technical assistance grants (TAGs). In response to comments that the community should review drafts of the CRP, generally it is not EPA's practice to publicly release draft documents in order to protect the lead agency's deliberative process. However, persons may submit comments on the final CRP to the lead agency, which may, as appropriate, revise the CRP in response to these comments. And, in fact, since the CRP is itself a public involvement tool, lead agencies may modify public outreach activities based on the interviews or other information obtained through implementation of the CRP.

During the community interviews, the lead agency is required to determine "how and when citizens would like to be involved in the Superfund program." Once this is known, the public participation activities desired can be planned and implemented on a site-specific basis appropriate to the level of interest within that community. These activities will be described in the CRP that is developed for each site. Therefore, because the interviews are the primary source of information to the lead agency about community concerns, and such information is used to develop the CRP, EPA does not agree with the commenters' description of the CRP as a "one-way dialogue" or "sell job." EPA intends that there be extensive public involvement in developing the CRP, namely in identifying community concerns about the site and in determining the appropriate opportunities for community involvement in site activities.

However, because such comments were received revealing an apparent misunderstanding of the CRP, EPA is revising § 300.430(c) to clarify the purpose of the CRP which is: (1) to ensure that the public receives appropriate opportunities for involvement in a wide variety of site-related decisions, including during site analysis and characterization, alternatives analysis, and selection of remedy; (2) to determine, based on community interviews, appropriate activities to ensure such public involvement; and (3) to provide appropriate opportunities for the community to learn about the site.

One commenter claimed that while potentially responsible parties (PRPs) are involved at every step of the remedial process, citizens are shut out of decision-making concerning the scope of the sampling programs, definitions of affected populations, assumptions made during risk assessments, establishment of remedial action objectives, and many other issues that are central to the final selection of remedy. Other comments were received on the availability and accessibility of information. One commenter observed that information repositories should be locally available. Several commenters suggested that free copies of documents should be made available and the repository should include an index to facilitate document retrieval. One commenter stated that there should be citizen review of contractor reports.

EPA agrees that the lead agency should provide citizens and PRPs with access to the same technical information about the site throughout the cleanup process and believes that the NCP provides this access. As required by the statute, the NCP provides for the establishment and public availability of the administrative record files for each response action. These files generally will become available early in the decision-making process and will include the types of documents mentioned by the commenter. Members of the public are provided an opportunity and are encouraged to review the documents prior to or during the comment period. In addition, citizen understanding of complex, technical issues will be improved if lead agencies and PRPs, where conducting response actions, produce clear and understandable summaries of technical documents. EPA intends to work with PRPs in the preparation of summaries of technical documents for the public to the extent that summaries are not already included in fact sheets, updates, and the proposed plan. Lead agencies should provide copies of these summaries in the information repository and, where appropriate, the administrative record file.

In addition to the administrative record file discussed above, the NCP further requires that the lead agency establish an information repository before field work for the RI begins. Like the administrative record, the information repository is located at or near the site. This repository should contain a copy of items made available to the public, including, unlike the administrative record file, those not directly related to selecting a remedy. EPA generally provides for reasonable access to documents by making information repositories convenient to the interested public, in terms of location, operating hours and copying facilities, and by indexing the materials. Lead agency staff should complete any necessary reviews of documents as quickly as possible so they can be released to the public and placed in the information repository and the administrative record file. The public should receive notice of the availability of documents through fact sheets or other mailings.

In response to the comment that citizens should be able to review contractor reports, EPA stresses that the lead agency creates an administrative record file containing those documents that form the basis for the selection of a response action. Reports developed by contractors that are relevant to response selection will be included in the administrative record file. EPA is not requiring, however, that all contractor reports be made available to the public. Contractor reports that are not relevant to response selection decision-making are not part of the administrative record (see Subpart I of the NCP for a discussion of the administrative record).

Another commenter asserted that EPA should notify the public of meetings with PRPs and allow a citizen representative to be present. Related to this issue, another commenter requested clarification of the provision in the proposed NCP allowing the lead agency to conduct technical discussions with PRPs and the public separately from, but contemporaneously with, negotiation/settlement discussions. One commenter recommended that citizen advisory committees be created as a part of the Superfund community relations process to facilitate a partnership between EPA and community representatives.

The rule does allow for technical discussions involving responsible parties and the public. They are, however, to be held separately from settlement negotiation discussions in which information on liability of a party and other enforcement sensitive issues are discussed. Lead agencies should, however, bring citizens into technical discussions early in the RI/FS process. Some mechanisms, such as community work groups, task groups and information committees, have proven successful in bringing together citizens, local government officials, and PRPs. EPA encourages communities to form work groups and to keep these work groups informed about lead agency actions. EPA, however, is not revising the NCP to require the establishment of more formal groups such as citizen advisory committees. Such committees may not be necessary or appropriate for every site. Further, if EPA were to establish formal citizen advisory committees, they may be subject to the Federal Advisory Committee Act which sets specific restrictions on the composition and conduct of such committees.

Several commenters indicated that the language in Subpart I on administrative record, stating that EPA is not required to respond to comments submitted before the public comment period, sends the wrong message regarding EPA's interest in public participation. The commenters urged EPA to encourage response to early comments, thereby improving decision-making. Another commenter asked that the public be provided not only a summary of the support agency's comments on the proposed plan but the lead agency's response to those comments as well.

Although EPA agrees that a prompt response to comments is desirable in most cases, EPA is only requiring a formal response to comments to be prepared after the close of the public comment period on the proposed plan. EPA is not requiring that comments received before the public comment period be responded to before the comment period for several reasons. First, it is likely that the lead agency would not have enough information to sufficiently respond to some comments early in the process of investigating and analyzing sites or prior to receipt and consideration of all public comments. Second, if the NCP required comments (e.g., PRP volumes of comments and studies) to be responded to as they were received, site managers could continually be diverted from their site cleanup tasks to spend time responding to comments. The NCP, therefore, requires that comments must be responded to only during specific times in the process. The NCP requires that the lead agency summarize the comments received during the comment period on the proposed plan and provide its response to these comments. This document, the "responsiveness summary," is part of the record of decision, and is placed in the administrative record file. Site managers may respond to comments received at other times at their discretion. However, as discussed in the preamble to Subpart I, EPA has revised the rule to encourage lead agencies to respond to significant comments submitted prior to the formal comment period.

Other commenters said there should be additional communication with the public, such as more public meetings, direct mailings, and an improved notification system. A commenter suggested that the lead agency should be required to compile a site mailing list. EPA encourages such additional communication with the public in order to respond to their information requests. The lead agency will determine what is the most effective notification system for a particular site. Therefore, EPA believes that it is not appropriate or necessary in the NCP to require such activities, e.g., a site mailing list, at all sites.

Some commenters suggested that the NCP require the lead agency to make available at public meetings conducted to discuss the proposed plan, those consultants or lead agency representatives who prepared the RI/FS and selected the response.

EPA does not agree that it is necessary for the NCP to require at every site that the consultants who aided in the development of the proposed plan or RI/FS attend public meetings on the proposed plan. The lead agency is responsible for conducting such meetings and the presence of consultants is not always necessary in order for the lead agency to explain the proposed remedy and the supporting analyses and to respond to questions asked by the public.

A series of commenters addressed the specifics of the technical assistance grant (TAG) program, the timing of TAG awards in the remedial process, and how TAGs should be implemented. One commenter stated that TAG should be integrated into the community relations provisions of the NCP. Another commenter recommended that TAGs be referenced or directly incorporated in the NCP in order to assist in promoting participation in the TAG program. A commenter offered specific language to be inserted into the NCP, which would include stating that EPA would encourage citizens to apply for TAGs.

Specific comments on the TAG program will be addressed in the TAG final rule. However, EPA does agree that TAGs also should be discussed in the NCP. Specifically, the availability of TAGs is now referenced in § 300.430(c). By including a reference to TAGs in the NCP. EPA intends to encourage citizens to apply for TAGs.

Additionally, EPA encourages PRPs to provide grants to communities to enable them to obtain independent technical assistance as a complement to, and separate from, the EPA TAG program. EPA can provide information and advice to PRPs and communities regarding how such PRP grants have been used successfully at other Superfund sites.

A commenter stated that the cleanup process in general, from the RI/FS to remedy selection, is hindered by a lack of a free flow of information between lead agencies and PRPs. Commenters argued that PRPs need increased opportunity to participate in the decision-making process. They recommended that the NCP provide an opportunity for PRPs to receive copies of and to formally comment on all key EPA decision documents, including the work plan, sampling results, the risk assessment, and the detailed remedial studies. One commenter contended that allowing PRPs to comment only on the proposed plan limited PRPs from developing the administrative record in a meaningful way, violated their due process rights, and was contrary to the intent of CERCLA. Another commenter suggested that there should be a formal mechanism for PRPs to participate in the development of the administrative record with regard to the selection of remedy.

In response to the comments suggesting more PRP involvement, EPA believes that the NCP provides numerous opportunities for PRP involvement. When the lead agency identifies PRPs, they are presented with the opportunity to undertake the remedial investigation and feasibility study and cleanup under lead agency oversight. If PRPs choose not to undertake these tasks, they are provided with the same opportunities for involvement in site cleanup decisions that the general public is afforded. The regulations promulgated today require that some of the documents specifically requested by some commenters (sampling results, risk assessments, and others) are placed in the administrative record file as soon as they are available for public review. Such documents may be commented on during the comment period on the proposed plan. The NCP provides PRPs with a full opportunity to comment on key decision documents, not just the proposed plan, and to participate in the development of the administrative record. Thus, public involvement opportunities provided by the NCP are fully consistent with congressional intent and any due process requirements. Subpart I also includes a discussion of the development of the administrative record.

One commenter asserted that states should have discretion to vary the community relations process, for example, substituting news releases for paid advertisements to announce the proposed plan, comment periods, and public meetings; substituting a tape recording for a written transcript of public meetings; and shortening the public comment period in some cases to less than 30 days.

EPA does not agree that lead agencies should have discretion to vary the community relations requirements set out in the NCP. In order to ensure adequate minimum public participation at all sites across the nation, EPA maintains that the lead agency must comply with the community relations requirements specified in the NCP.

Final rule: The following additions are made to proposed § 300.430(c):

1. The purpose of the community relations plan is described in § 300.430(c)(2)(ii).

2. A statement on the availability of technical assistance grants (TAGs) has been added to § 300.430(c)(2)(iv).

Name: Sections 300.415(m)(2)(ii), 300.430(f)(3)(i)(C) and 300.435(c)(2)(ii)(C). Length of public comment period.

Existing rule: Section 300.67 requires a minimum 21-calendar day public comment period on feasibility studies that outline alternative remedial measures.

Proposed rule: Proposed § 300.415(n)(2)(ii) (§ 300.415(m)(2)(ii) in the final rule) required a minimum 30-day public comment period on the administrative record, as appropriate, for time-critical and non-time-critical removal actions. Proposed §§ 300.430(f)(2)(i)(C) (§ 300.430(f)(3)(i)(C) in the final rule) and 300.435(c)(2)(ii)(C) required a minimum 30-calendar day public comment period on the proposed plan and other documents for remedial actions.

Response to comments: Several commenters requested that the minimum duration of the public comment period for remedial actions be increased. Most commenters recommended a 60-day minimum and some recommended at least a 90- or 120-day period. A few commenters requested that the minimum public comment period for non-time-critical removal actions be increased from 30 to 60 days. One commenter requested such an increase for time-critical and non-time-critical removal actions.

Many reasons were given for increasing the minimum comment period, including that it would allow more time to review large volumes of technical information and complex issues and to obtain technical assistance in reviewing such information. Some commenters noted the importance of the comment period because it is the only meaningful opportunity to provide input on the proposed remedial action. One commenter asserted that selection of a remedy typically represents an expenditure of millions of dollars and that a full airing of the alternatives with a meaningful opportunity to evaluate and comment on the alternatives is warranted to avoid the squandering of public and private resources. Another commenter added that a longer comment period would not threaten the environment because EPA retains its ability to respond to imminent threats. One commenter suggested that a comment period of less than 30 days may be adequate for emergency actions or when the community agrees with the remedy.

There is no question that the public comment period should be long enough to allow sufficient review of the proposed plan and key documents in the administrative record file, and should take into account the length and complexity of the information under review at such time. EPA notes that some if not most of these lengthy technical documents are placed in the administrative record file and made available for public review well before the start of the comment period, thus allowing a longer time for review of key supporting documents. Also, the NCP does not preclude the lead agency from extending the period upon request and such requests have been typically granted. EPA believes, however, that because of the importance of the public comment period to response selection decision-making, further time for comment should be explicitly specified in the NCP. Therefore, EPA has revised the public comment period for remedial actions to state that the minimum comment period to be provided is 30 days but that this period will be extended an additional 30 days period upon timely request (in order to be "timely," a request generally must be received within 2 weeks after the initiation of the public comment period). The lead agency may extend the comment period on its own initiative when it is appropriate or necessary to do so or announce from the outset that the comment period will be longer than 30 days. EPA has also revised the language on non-time-critical removal actions to provide that an additional 15 days to the public comment period will be granted upon timely request. EPA believes that a longer (i.e., 30-day) extension for removal actions is not necessary because the documents involved generally are not as lengthy or complex as for a remedial action. Any further extensions are within the discretion of the lead agency. This change is also consistent with the Superfund management review referenced above, which specifically recommended extending the comment period for remedial actions an additional 30 days, upon request.

Final rule: The final rule will be revised as follows:

1. Add to § 300.415(m)(4)(iii): "Upon timely request, the lead agency will extend the public comment period by a minimum of 15 additional days."

2. Add to §§ 300.430(f)(3)(i)(C) and 300.435(c)(2)(ii)(C): "Upon timely request, the lead agency will extend the public comment period by a minimum of 30 additional days.

Name: **Section 300.435(c). Community relations during remedial design/remedial action.**

Existing rule: Section 300.67 addresses community relations in general, but does not include community relations requirements during the RD/RA stage.

Proposed rule: CERCLA section 117(c) requires publication of an explanation of significant differences (ESD) if the action differs in significant respects from the final plan. Proposed § 300.435(c) provides for revision of the community relations plan prior to initiation of remedial design if necessary to address new concerns. It also specifies procedures for publishing an explanation of significant differences (ESD) from the ROD and for amending a ROD. The lead agency is required to provide an opportunity for public comment only when it proposes to amend a ROD.

Response to comments: Many commenters requested the opportunity for increased public participation throughout the post-ROD period. Several commenters strongly recommended keeping the public informed about changes and accomplishments during design and construction of the remedy. Some suggested that the states should continue to be provided with opportunities for substantial and meaningful participation through the post-ROD period. Others stated that the lead agency should be required to seek out and respond to observations of residents near the site during remedial action. One commenter recommended that public involvement be mandated in the NCP until final closure, stating that such action would encourage teamwork and reduce adversarial relationships and distrust during cleanups.

Some commenters objected to the proposed requirement for revising the community relations plan because it is not required by statute and will further slow down the cleanup process. One suggested that press releases will satisfy information needs of the community.

Some commenters stated that community relations activities during RD/RA other than those specified should be determined on a site-by-site basis at the discretion of the lead agency. Such activities should reflect the degree of public concern communicated through the community interviews and the revision of the CRP.

Another commenter recommended that a fact sheet be issued or a public meeting be held prior to completion of remedial design, that the information repository should continue to be maintained and that interviews be conducted when revising the community relations plan.

EPA agrees that public participation throughout the remedial design/remedial action (RD/RA) stage of the remedial response is important. It is EPA's intent to continue to undertake activities during RD/RA that involve affected communities and interested parties in actions taken at a site to ensure that the concerns of interested parties are addressed. The proposed rule provided for revision to the community relations plan (CRP) during RD/RA in cases where community concerns are not already addressed by the CRP. The final rule requires the lead agency to review the CRP prior to the initiation of the remedial design. This revision is more proactive than the proposed rule because it ensures that the lead agency will revaluate at every site the adequacy of the CRP for the RD/RA phase of response. If further public involvement activities during RD/RA are not already described in the CRP, the CRP will be revised so that an appropriate level of public involvement will be maintained. EPA believes that it is necessary to reassess citizen's concerns after selection of the remedy in order to evaluate the effectiveness of EPA's communications efforts to date and to determine whether public involvement concerns have changed as a result of changes in the community. EPA recognizes that during the Superfund process, elected officials may change and new people may move into the area. The review of the CRP at the RD/RA phase will allow the lead agency to take into account concerns raised by these new members of the community.

Additionally, in response to comment, EPA has revised the NCP to require lead agencies to conduct further public involvement activities during RD/RA, including distributing a fact sheet on the final engineering design to the community and other interested persons. The fact sheet will enable the lead agency to inform the public about activities related to the final design, including the schedule for implementing the remedy, what the site will look like during operation of the remedy and an explanation, if appropriate, of the roles of the various government agencies that may be involved in the remedial action, e.g., EPA, the state or the Corps of Engineers. A fact sheet generally can contain more information than a press release so it is preferred as a means of

Name: **Section 300.435(c)(2). Changes to the ROD after its adoption.**

Proposed rule: Proposed § 300.435(c)(2) incorporated the requirements of section 117(c) of CERCLA that the lead agency publish an explanation of the significant differences when significant changes in the remedy occur after the ROD is signed, and the section 117(d) requirement that such publication include publication in a major local newspaper of general circulation. In addition, this section distinguishes between an explanation of significant differences, which announces a significant change in the selected remedy, and a ROD amendment, which fundamentally alters the remedy selected in the ROD.

Section 122(d)(1)(A) of CERCLA provides that whenever EPA enters into an agreement under section 122 with any PRP to undertake a remedial action, the agreement shall be entered as a judicial consent decree. Section 122(d)(2) requires that the Department of Justice (DOJ) provide the public with an opportunity to comment on the proposed consent decree at least 30 days prior to its entry. Where the proposed consent decree fundamentally alters the ROD, EPA contemplates that it will issue a proposed ROD amendment concurrent with the proposed consent decree, and that the public comment period provided pursuant to section 122(d)(2) will satisfy the requirements for additional public comment for a ROD amendment.

EPA believes that the appropriate threshold for amending a ROD is when a fundamentally different approach to managing hazardous wastes at a site is proposed. As a result, EPA has determined that a change in remedial approach sufficiently significant to require ROD amendment should have the benefit of consideration of public comments and should, therefore, undergo the same public and support agency involvement as the original ROD, including the publication of a proposed plan and a public comment period.

Response to comments: EPA received several comments requesting clarification of the different responses to changes in the remedy after the ROD is signed during the RD/RA process; specifically, commenters wanted clarification of the distinctions between a significant difference, which requires an ESD but no public comment, and fundamental change from the ROD, which requires a ROD amendment with public comment.

A number of commenters addressed the procedures when there are changes to the ROD after its adoption. Some commented that it is important to seek out public input before proposing to amend the ROD because public comments are of little use after a decision has been made. Others argued that reopening a final decision for additional public comment can lead to additional delay and cost in completing remedial actions. A commenter stated that CERCLA does not require a ROD amendment to be subject to public comment. Several commenters requested that the lead and support agencies should concur on proposed significant changes and ROD amendments before proposed changes are announced to the public. One of these commenters recommended that the lead agency be required to respond to a support agency's disagreement with a proposed ROD amendment in the notice of availability and in the new proposed plan.

Many commenters contended that the distinction between significant difference and ROD amendment was not clear and requested clarification. One commenter recommended that the public be given the opportunity to comment on significant changes. Another commenter recommended that PRPs have an opportunity to comment on proposed significant changes.

One commenter recommended that the preamble to the final NCP state that the lead agency will reconsider its remedy when new information indicates that the selected remedy may not be cost-effective or is otherwise inconsistent with the NCP.

EPA responds to the above comments by clarifying changes to ROD after the ROD has been signed. After the ROD is signed, new information may be generated during the RD/RA process that could affect the remedy selected in the ROD. Three types of changes can occur: (1) non significant changes; (2) significant changes; and (3) fundamental changes. The lead agency must identify when a remedial action, settlement, or decree differs significantly from the ROD.

Nonsignificant changes are minor changes that usually arise during design and construction, when modifications are made to the functional specifications of the remedy to optimize performance and minimize cost. This may result in minor changes to the type and/or cost of materials, equipment, facilities, services and supplies used to implement the remedy. The lead agency need not prepare an ESD for minor changes. These changes should be documented in the post-ROD file, such as the RD/RA case file.

Significant changes to a remedy are generally incremental changes to a component of a remedy that do not fundamentally alter the overall remedial approach. For example, the lead agency may determine that the attainment of a newly promulgated requirement is necessary, based on new scientific evidence, because the existing ARAR is no longer protective. Where this new requirement would affect a basic feature of the remedy, such as timing or cost, but not fundamentally alter the remedy specified in the ROD (i.e., change the selected technology), the lead agency would need to issue an explanation of significant differences announcing the change. Another example would be when sampling during the remedial design phase indicates the need to increase the volume of waste material to be removed and incinerated by 50 percent, requiring an increase in cost, in order to meet remediation goals.

This increase in the scope of the action represents a significant change and requires an ESD. Similarly, the lead agency may decide to use carbon adsorption instead of air stripping to conduct ground-water treatment. This change requires an ESD to notify the public of the change; however, the basic pump and treat remedy remains unaltered and the performance level specified in the ROD will be met by the new technology, so a ROD amendment is not necessary.

If the action, decree, or settlement fundamentally alters the ROD in such a manner that the proposed action, with respect to scope, performance, or cost, is no longer reflective of the selected remedy in the ROD, the lead agency will propose an amendment to the ROD. For example, the lead agency may have selected an innovative technology as the waste management approach in the ROD. Studies conducted during remedial design may subsequently indicate that the innovative technology will not achieve the remediation goals specified as protective of human health and the environment in the ROD. The lead agency, based on this information, may determine that a more conventional technology, such as thermal destruction, should be used at the site. In this event, the lead agency will propose to amend the ROD. The public will have a full opportunity to comment on the proposed amendment. Thus, contrary to the commenters' suggestion, the final decision to amend is not made until after consideration of public comment, as in the original ROD.

EPA also disagrees with the commenter who suggested that public comment should not be provided for ROD amendments because CERCLA does not require it. This comment apparently is based on the interpretation that once EPA selects a final remedial plan, any further changes, even those not contemplated in the proposed plan or ROD and thus never subject to public comment, would need no public comment. EPA agrees that CERCLA section 117 expressly provides for public comment only on the proposed plan and provides only a notice requirement for significant changes. However, EPA disagrees with the commenter's interpretation that the lack of an explicit requirement in the statute means that no public comment is necessary for any changes to the ROD. The public comment on the original proposed plan required under section 117(a) could be rendered meaningless by a revision which is fundamentally different from the remedies suggested in the proposed or final remedial plan. EPA does not believe that Congress intended that the critical public involvement opportunities provided in section 117 could be made irrelevant in such a manner. Moreover, because ROD amendments are as important a part of the remedial decision-making process as the selection of the original remedy, EPA believes that the public comment opportunities on changes to the ROD should be treated with equal importance.

One commenter stated that the public should have the opportunity to comment on the ESD, arguing that to do otherwise would deny PRPs their due process unless they were allowed to add to the administrative record. EPA disagrees with this comment.

EPA has attempted to develop an administrative process which balances the public's continuing need for information about, and input into, post-ROD remedial action decisions, with the lead agency's need to move forward expeditiously with design and implementation of the remedy after fundamental decisions have been made in the ROD. Thus, § 300.435(c) of the final rule provides that where EPA plans to make a fundamental alteration in a selected remedy, EPA is required to modify the ROD, and to follow a public comment process similar to the development of the original ROD. However, where the change to the action is "significant" -- such that the public should be notified of it -- but is not a fundamental alteration of the selected remedy with respect to "scope, performance, or cost," the lead agency may publish an ESD without triggering a new round of comment, as provided in § 300.435(c) and section 117(c) of CERCLA.

This is not to say that the public is excluded from the administrative process when ESDs are issued; rather, they have notice and a limited opportunity to comment. Specifically, EPA is required to document the rationale for the changes contained in an ESD, and to include such rationale in the administrative record for public review, pursuant to §§ 300.435(c) and 300.825(a). Then, if a commenter presents new information which substantially supports the need for significant changes to the remedy (as modified by the ESD), the lead agency is required to consider such comments. Section 300.825(c). EPA believes that these provisions provide ample opportunities for public participation, and that a separate comment period for each ESD (plus a period for response to comment) is not necessary or consistent with the need to take prompt action, especially where the change is not a fundamental one. It should be noted that, although Congress provided for a comment period on the proposed plan, it did not require one for an ESD.

It is also important to note that at the time of an ESD, the public will already have had an opportunity to comment on the alternative remedial options for the site (including the recommended remedial option) during the comment period on the FS and proposed plan; it is at that time that commenters may bring to EPA's attention fundamental issues concerning the remedial action that should be taken. When an ESD is issued, after remedy selection, EPA is simply modifying the remedy to enhance its protectiveness, effectiveness, or cost; by definition, it is not a "fundamental" reconsideration of the basic remedy selection decision on which comment was taken. Just as EPA may initially select a remedy that differs somewhat from those proposed without triggering a new round of comment each time (indeed, the changes may be a direct result of the comments), so may EPA issue an ESD that reflects a nonfundamental change or refinement in the remedy without requiring a separate round of comment.

Commenters also requested more information on the procedures for executing an ESD, specifically on the roles of lead and support agencies. Commenters also recommended that the lead agency seek the approval of the support agency before releasing the ESD. When an ESD is issued, the lead agency should consult with the support agency (unless a SMOA, cooperative agreement, or Superfund state contract requires concurrence) prior to notifying the public in a major local newspaper of general circulation. The lead and support agency will generally reach agreement on the proposed significant change. If agreement cannot be reached, and dispute resolution processes are not effective, then the support agency's comments should be summarized in the ESD and placed in the administrative record files. The public notice of the ESD will summarize the explanation of significant differences by identifying the significant changes and the reasons for the changes. The lead agency will also place the explanation of significant differences and information supporting the decision in the information repository and administrative record file. Further information concerning issuance of ESDs on ROD amendments is available in "EPA's Guidance on Preparing Superfund Decision Documents," OSWER Directive 9355.3-02, October 1989 (Interim Final).

One commenter requested EPA to remove the institutional bias against reopening the ROD, especially in the light of new monitoring data developed in the design phase or in studies on other operable units, that indicates the site is less hazardous than previously thought. EPA recognizes that new information may warrant rethinking a remedy selected for a site. EPA has designed procedures, described in § 300.435(c), for amending the ROD if it is warranted by new information.

Final rule: EPA is promulgating the rule as proposed.

Name: Other community relations requirements.

Proposed rule: Section 300.155 is a new section in the proposed NCP outlining the purpose, applicability and general procedures for establishing community relations at a site, as well as cross-referencing community relations components of the removal, RI/FS, and remedial design sections of the regulations. Sections 300.415, 300.430 and 300.435 govern community relations procedures for the removal, RI/FS, and remedial design phases, respectively.

Response to comments: Several of those submitting comments requested a general description of the enforcement community relations process in the preamble to the proposed NCP.

While the sections cited above and the preceding discussion detail the processes governing community relations at various stages in a Superfund cleanup, including an enforcement action, the following discussion is intended to assist in giving an overview of the role of community relations as it relates specifically to enforcement actions.

In response to citizen concerns, EPA has made an effort to foster better two-way dialogue between communities and those designing and conducting a site cleanup. EPA believes that responsible and timely communication with the public is essential both to improving site responses through citizen input, and to improving the public's understanding of a site response in their community. Accordingly, EPA feels that community relations during an enforcement action is an integral part of the process. In fostering community involvement during enforcement actions, regional community relations coordinators (CRCs) follow the same steps as they would for Fund-financed actions: conducting community interviews, developing community relations plans, sending out public notices periodically and conducting public information meetings. The lead agency at any site develops a community relations plan taking into account the concerns of the community. In enforcement cases, the plan should describe how the lead agency will keep the public apprised of the nature of the discussion with PRPs. EPA retains control over developing, writing and implementing these plans at "PRP-lead" sites, but PRPs can assist in the development of a plan at the discretion of the regional office.

Community relations activities in the form of meetings with groups of citizens, local officials and other interested persons in the community, often occur before the RI/FS special notice is sent (see preamble to the proposed NCP on special notice and moratoria, 53 FR 51432). Discussions of PRP liability and possible settlement terms will generally be reserved for confidential negotiation sessions, but the lead agency will attempt to explain these issues in general terms to the public. Lead agencies should bring citizens into technical discussions early in the RI/FS process, and aid members of the public seeking to apply for technical assistance grants.

EPA received a comment asking that federal agencies conducting a response action be granted greater flexibility when implementing public participation requirements, as long as they meet the overall public participation objectives.

Section 120(a)(2) of CERCLA holds federal agencies to the same NCP standards and requirements as any other party. In addition, the public participation requirements in the NCP establish basic minimum public participation requirements. Exempting federal agencies from, or granting them discretion in, following specific public participation requirements would run contrary to Congressional intent to institutionalize certain public participation activities in response actions and EPA's experience concerning what requirements for public involvement are essential. Subpart K of the NCP will address in greater detail the role of federal agencies other than EPA in carrying out a response action.

Final rule: EPA is promulgating the rule as proposed.

ENFORCEMENT

Name: Superfund enforcement program strategy.

Proposed rule: The preamble to the proposed NCP includes a brief discussion of the 1986 SARA amendments to CERCLA enforcement provisions. This discussion states that the SARA amendments added provisions "intended to facilitate responsible party financing of response actions." CERCLA section 122, for example, provides mechanisms by which settlements between responsible parties and EPA can be made, and allows for `mixed funding' of response actions, with both EPA and responsible parties contributing to response costs" (53 FR 51395).

Response to comments: One commenter stated that EPA should minimize Fund depletion through less stringent cleanups at many sites in favor of increased use of administrative orders and penalties to force PRP cleanup wherever viable PRPs are located.

Since the 1986 amendments were passed, EPA has embarked on a course that increasingly seeks PRP funding of response actions and relies less on Fund expenditures. In addition, EPA's recently completed internal management review of the Superfund program ("A Management Review of the Superfund Program," June 1989) ranked the increased use of enforcement capabilities to encourage PRP-funded cleanups as one of EPA's highest priorities. The comment above reflects a need for clearer articulation of what is already a well-established EPA policy to emphasize enforcement.

EPA will use the fact and threat of enforcement, encompassing a broad range of administrative and legal tools, to increase the proportion of cleanups undertaken by private parties.

Final rule: There is no rule language on this issue.

Name: Special notice and moratoria.

Proposed rule: There is a general discussion of special notice in the preamble to the proposed NCP and an overview of the Superfund program and response process (53 FR 51432).

Response to comments: Several of those who submitted comments believe that the discussion of special notice and moratoria in the preamble to the proposed NCP provides a good introduction to the Superfund program, but asked for more specific language articulating EPA's enforcement strategy for the program clarifying a priority for enforcement responses over Fund-financed responses. One commenter requested language stating that formal negotiations are not the only vehicle for reaching a settlement with PRPs, and that informal negotiations can and do extend beyond the 60-day formal negotiation period if "sufficient progress has been made."

EPA believes that a clear articulation of its goals for program enforcement is necessary and appropriate, but that this articulation belongs in the form of guidance documents on general policy goals and not as part of these regulations. The preamble to the proposed NCP discussion of § 300.430, special notice and moratoria, already articulates EPA's preference for enforcement responses clearly: "A fundamental goal of the CERCLA enforcement program is to facilitate settlements, i.e. agreements securing voluntary performance or financing of response actions by PRPs" (53 FR 51432). The discussion also recognizes the important role of informal negotiations: "'formal' negotiations should not be viewed as the sole vehicle for reaching settlement....[F]requent interaction between EPA and PRPs, through exchange and 'informal' discussions may be appropriate outside of the 'formal' special notice moratorium" (53 FR 51432). The discussion specifies that negotiations can continue beyond the 60-day negotiations period if EPA receives a "good faith offer," a stipulation more specific than the broader "sufficient progress" language proposed by the commenter and reflective of statutory directives under section 122(e)(2)(b).

Final rule: There is no rule language on this issue.

Name: Exemptions for federal facilities.

Proposed rule: Section 300.2 outlines the statutory requirement for NCP revision to reflect changes made to CERCLA by the 1986 SARA amendments. Section 300.3 describes the NCP as applying to federal agencies and states for responses governed under CERCLA and in cases of oil discharges and other hazardous releases. The preamble to the proposed NCP describes the applicability of the NCP to federal facilities (53 FR 51395-96).

Response to comments: One commenter proposed that a general "grandfather" clause be added to the proposed NCP exempting federal agencies from complying with new NCP regulations for actions and studies on federal facilities already in progress and initiated under preexisting NCP regulations. A related comment asked that a grandfather clause exempt any party who has initiated response actions at a site under the provisions of the preexisting NCP. A commenter argued that any other policy would be "disruptive to environmental progress."

EPA disagrees, and believes that the new NCP provisions should take effect 30 days after promulgation, as provided herein. The commenter's suggestion would result in a situation where response actions "initiated" before this rule would be exempt. However, many response actions -- especially remediation of contaminated ground water -- can take years to complete; it would not be appropriate to exempt from this rule actions that will continue for long periods of time. EPA did consider the option of making the rule effective as those "phases" of response actions begun after the effective date; however, it is difficult to divide response actions into distinct phases, especially in the case of long-term remedial actions. On the general issue of whether the new requirements will be burdensome, several points are worth noting. First, EPA's stated policy has been to use the proposed NCP revisions as guidance, and in fact, EPA has done so; thus, the majority of provisions in today's rule are well known. Second, to a large degree, today's rule implements the SARA statutory requirements, which have been in effect since 1986; on-going actions are already required to meet those requirements.

With regard to the suggestion that generally-applicable NCP requirements should apply to federal facilities on a different schedule than would apply to others, EPA notes that CERCLA section 120(a) is very clear in prohibiting special treatment for federal facilities:

> "All guidelines, rules, regulations and criteria which are applicable to preliminary assessments ..., applicable to such facilities under the National Contingency Plan, applicable to inclusion on the National Priorities List, or applicable to remedial actions at such facilities shall also be applicable to facilities which are owned or operated by a department, agency or instrumentality of the United States in the same manner and to the same extent as such guidelines, rules, regulations or criteria are applicable to other facilities.

EPA will, however, after a notice and comment rulemaking, issue a new Subpart K to the NCP that will address some of the special concerns of the federal facilities, and problems unique to federal facility cleanups.

Final rule: See preamble section on § 300.3 for revisions to proposed rule.

Name: **Sections 300.420, 300.430 and 300.435. Early notification and involvement.**

Proposed rule: Section 300.420 describes the methods, procedures and criteria used during remedial site evaluation. Section 300.430 describes the specific tasks and activities of the RI/FS process and selection of remedy, including a preamble to the proposed NCP discussion section on special notice and moratoria pursuant to CERCLA section 122(e) that describes how EPA can issue special notice letters to PRPs in pursuit of a settlement agreement. Section 300.435 describes RD/RA activities, including procedures for public and PRP notification when remedial actions differ significantly from those outlined in the ROD.

Response to comments: Several of those who commented believe that the NCP should explicitly identify opportunities for early PRP notification and involvement, and agreed that notification should be made to all parties as soon as practicable after site discovery, both to facilitate settlements and information gathering, and to help EPA make an informed decision on deferred listing. One suggested that the proposed NCP state that EPA regional staff should involve "willing" PRPs in project scoping, resulting in less remedial alternatives to evaluate. The comment did not specify whether "willing" referred to settling PRPs or cooperative, nonsettling PRPs, or both. The comment added a request to include an overall site remediation management plan as part of the RI/FS in the proposed NCP. Another comment suggested that introductions to all three sections at issue above should state EPA's commitment to issue general and special notice letters to known PRPs before taking any action at the site. Finally, one comment outlined a revised process to better involve PRPs in remedial action: PRPs should be notified of selection of an RI/FS contractor; be given copies of project scoping and work plans; be given notice of lead-agency sampling plans as well as copies of all sampling results as they become available; a list of ARARs furnished to PRPs with PRP opportunity to comment; a list of potential alternatives for the FS, and copies of the risk assessment be provided to PRPs along with the opportunity to comment on these.

Section 300.415(a)(2) adds language articulating EPA's commitment to contact known PRPs "to the extent practicable" in order to "determine whether they can and will perform the necessary removal action" (53 FR 51500). EPA believes that it must preserve its discretion regarding timing of PRP notification provided in the statute to protect its enforcement and response flexibility. The preamble to the proposed NCP already reflects EPA's commitment to early notification and early PRP involvement at a site in the discussion of § 300.430: "EPA believes that settlements are most likely to occur and will be most effective when EPA interacts frequently and early in the process with PRPs" (53 FR 51432). Specific regulations would restrict EPA discretion and the use of incentives in enforcement activities to bring about a settlement. Finally, the statute already provides PRPs with an opportunity for further involvement in the RI/FS process by entering into an agreement with EPA and conducting the RI/FS and/or the response action.

Final rule: EPA is promulgating the rule as proposed.

SUBPART F -- STATE INVOLVEMENT IN HAZARDOUS SUBSTANCES RESPONSE

Subpart F is completely new. It combines concepts described in separate sections in the existing NCP on state role and involvement into one subpart, which codifies all regulatory requirements for state participation and involvement in CERCLA-authorized response actions. It also includes the minimum requirements EPA will follow to ensure that all states are provided an opportunity for "substantial and meaningful" involvement in the initiation, development, and selection of remedial actions as mandated by CERCLA section 121(f)(1). Following are summaries of major comments on the proposed Subpart F and EPA's responses.

Name: Section 300.5 Definitions of cooperative agreement and Superfund state contract.

Proposed rule: The proposed NCP, § 300.5, includes definitions of two terms not previously defined: cooperative agreement and Superfund state contract. Cooperative agreement means a federal assistance agreement in which substantial federal involvement is anticipated during the project. Superfund state contract means a joint agreement between EPA and a state that documents any required cost share and assurances necessary to conduct a response action.

Response to comments: Some comments were received on the definition of cooperative agreement. One commenter argued that the definition should be revised to recognize the availability of state cooperative agreements under section 311 of the Clean Water Act and the Coast Guard's authority to enter into such agreements under the Clean Water Act and CERCLA section 104(d). Another commenter stated that the recipient of a cooperative agreement should already have been determined to be qualified and responsible to conduct the response actions described in the cooperative agreement without substantial EPA involvement. "Substantial EPA involvement" was also disputed by another commenter who suggested that cooperative agreement be defined as a federal assistance agreement which authorizes the performance of federal duties and responsibilities within a prescribed scope.

Cooperative agreements under CERCLA are subject to the Federal Grant and Cooperative Act, 31 U.S.C. 6301-8, which defines cooperative agreement as a legal instrument in which substantial federal involvement is anticipated. This definition applies as well to CERCLA cooperative agreements. Moreover, EPA believes that there will be substantial federal involvement or oversight under most CERCLA cooperative agreements.

In 1988, the Office of Management and Budget revised Circular-A102 and established a government-wide "common rule" for all federal agencies which prescribed the administrative requirements for federal assistance to states, local governments, and federally recognized Indian tribes. EPA implemented this common rule through 40 CFR Part 31, which was developed at the time the NCP was proposed. As a supplement to 40 CFR Part 31, EPA also promulgated separate implementing regulations for Superfund, 40 CFR 35 Subpart O, Cooperative Agreements and Superfund state contracts for Superfund Response Actions. Either a cooperative agreement or a Superfund state contract must be used to obtain the necessary CERCLA section 104 assurances.

The definitions of cooperative agreement and Superfund state contract in 40 CFR Part 35 Subpart O are somewhat more detailed than the definitions for the same terms in the proposed NCP. The final NCP incorporates the 40 CFR Part 35 Subpart O definitions. The final NCP also cross-references Parts 31 and 35 Subpart O where appropriate. EPA acknowledges the United States Coast Guard's authority to enter into cooperative agreements under section 311 of the Clean Water Act and that E.O. 12580 provides the Coast Guard and other federal agencies with certain authorities under CERCLA. However, EPA believes that it is not appropriate to include this in the definition of cooperative agreement since the definition of this term is already prescribed by the Federal Grant and Cooperative Agreement Act of 1977.

Final rule: 1. Proposed definitions in § 300.5 are revised as follows:

> "Cooperative agreement" is a legal instrument EPA uses to transfer money, property, services, or anything of value to a recipient to accomplish a public purpose in which substantial EPA involvement is anticipated during the performance of the project.
>
> "Superfund state contract" means a joint, legally binding agreement between EPA and a state to obtain the necessary assurances before a federal-lead remedial action can begin at a site. In the case of a political subdivision-lead remedial response, a three-party Superfund state contract among EPA, the state, and political subdivision thereof, is required before a political subdivision takes the lead for any phase of remedial response to ensure state involvement pursuant to section 121(f)(1) of CERCLA. The Superfund state contract may be amended to provide the state's CERCLA 104 assurances before a political subdivision can take the lead for remedial action.

2. Cross-references to the relevant portions of 40 CFR Part 31 and Part 35, Subpart O, have been added to the NCP in the

following sections of Subpart F: 300.500(b), 300.505(c), 300.510(a), 300.510(b)(2), 300.515(a), 300.515(g), and 300.525(a).

Name: Section 300.500. General. Section 300.505. EPA/State Superfund memorandum of agreement (SMOA). Section 300.515(h). Requirements for state involvement in absence of SMOA.

Proposed rule: Proposed § 300.505 established general guidelines for developing and implementing a SMOA between EPA and a state (see preamble discussion in 53 FR 51455). A SMOA is an operating agreement that details how EPA and a state shall conduct business for remediating sites within that state. This section further described the ways in which a SMOA can provide a framework for the EPA/state partnership and how a SMOA may be used to establish the nature and extent of EPA/state interaction during response activities, to define the roles and responsibilities of each agency, and to describe the general requirements for EPA oversight.[23] Proposed § 300.505(a) also specified that a SMOA is not required unless a state requests to be designated as a lead agency for non-Fund-financed response actions at NPL sites, or to recommend a remedy for EPA concurrence for Fund-financed response actions. As proposed, the regulation would have established a SMOA as a prerequisite for both types of state involvement.

Section 300.515(h) described categories of requirements for state involvement in the absence of a SMOA, or in the event that the SMOA did not address all the major requirements for state involvement in remedial and enforcement responses. This section required that, in the absence of a SMOA, the support agency was responsible for providing the lead agency with potential ARARs and TBCs by the time site characterization data were available. The potential ARARs shall be communicated in writing within 30 working days of the lead agency's request. After the initial screening of alternatives, and before comparative analyses are conducted, the support agency has the opportunity to communicate additional requirements that are relevant and appropriate within 30 working days of receiving the request. Finally, the lead and support agencies shall remain in consultation so that ARARs and TBCs are updated, as necessary, until the ROD is signed.

Response to comments: 1. SMOA as prerequisite. Two commenters agreed that a SMOA should be required if a state requests to be designated as lead agency for non-Fund-financed actions at NPL sites or to recommend a remedy for EPA concurrence for Fund-financed actions. One of these commenters stated that, if EPA requires a state to sign a SMOA for these purposes, EPA must reach greement with the state on the SMOA within one year. Other commenters objected to linking the ability of a state to recommend a remedy for Fund-financed response to the existence of a SMOA. One commenter stated that delegation of program components should not be linked to the existence of a SMOA. Several commenters expressed the view that such requirements undermine the goal of a true partnership between EPA and the state. Commenters noted several concerns regarding this subject.

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[23] The term "partnership" does not imply that EPA and a state enter into a formal legal partnership agreement.

They argued that CERCLA section 121(f) mandates that EPA provide states with meaningful and substantial involvement in implementing Superfund. Since the SMOA is a voluntary, non-legally binding document, commenters asserted that the lack of a SMOA should not prevent states from participating meaningfully in the program. Commenters further argued that the existence of a SMOA will not improve the ability of states to select and recommend a remedy, particularly for those states already assuming lead roles. Degree of involvement should be a function of interest and ability, not of the existence of a SMOA at a particular moment in time. One commenter stressed that requiring a state to have a SMOA in order to be a contributing member in the Superfund program could create a serious problem for a state, particularly if the region declines to enter into a SMOA.

Several commenters stressed that a SMOA should not be a prerequisite for a state to recommend a remedy for EPA concurrence at a Fund-financed site. In such cases, a cooperative agreement would already be in existence and would address many of the issues otherwise contained in a SMOA. Furthermore, as lead agency, the state will have extensively analyzed the response needs and will be well qualified to select and recommend a remedy.

Many commenters mentioned that EPA can accept, reject, or modify any state recommendation for Fund-financed actions. This final authority over the state's remedy recommendation makes having a SMOA as a prerequisite unnecessary. Finally, several commenters asserted that EPA's decision to concur or not concur with the state's recommended remedy should be based on whether the recommendation is sound and satisfies the nine remedy selection criteria, not on the existence of a SMOA.

Another concern expressed by commenters regarding concurrence is one of timing. Several commenters were worried that the process of negotiating a SMOA can take a significant amount of time and could delay designation of sites for state-lead cleanup in the meantime. States that have demonstrated experience in Superfund implementation should not be restricted from recommending a remedy until negotiations are completed and a SMOA is in place.

Commenters generally did not agree with requiring a SMOA as a prerequisite for state lead during non-Fund-financed response actions at NPL sites for two reasons. First, commenters asserted that lead agency designation should be based on a state's ability to manage the necessary response activities, not on the existence of a SMOA. Second, commenters stated that if the SMOA was required for the state to be designated the lead agency, some states could be denied the opportunity to assume the lead if regions declined to enter into SMOAs. A few commenters mentioned that so far it appears that EPA has not placed a priority on finalizing a SMOA even when the state has initiated the drafting and development process. A few commenters were concerned that imposing a prerequisite for non-Fund-financed state leads may pose a hardship for smaller states, which desire only limited participation in lead activities. The commenters point out that a SMOA does not contain any provisions that could not otherwise be provided in a site-specific cooperative agreement.

EPA agrees with commenters that the SMOA should not be a prerequisite for certain program activities, and has modified the final rule accordingly. EPA will not require states to negotiate SMOAs in order to recommend remedies for EPA concurrence at Fund-financed sites, or to be designated as lead agencies for non-Fund-financed actions at NPL sites. A SMOA is not the appropriate mechanism to designate sites for which a state will recommend a remedy. EPA and a state will agree in a cooperative agreement that the state may recommend a remedy at a site for which the state has been designated as the lead agency. EPA has decided to remove the SMOA as a prerequisite for these activities in order to emphasize the primary purpose of SMOAs as voluntary agreements through which EPA and a state can agree on communication and coordination processes throughout the remedial process. This approach will be more conducive to expanding the EPA/state partnership in the Superfund program. EPA will enter into SMOA discussions if requested by a state.

EPA agrees that the absence of a SMOA should not in itself limit the level of participation by a state in the Superfund program, nor does the existence of a SMOA improve the ability of a state to participate more fully in the program. A SMOA can, however, act as an effective management tool and lead to a more effective EPA/state partnership through better defining roles and distributing responsibilities according to each party's resources and experience. Thus SMOAs may contribute to more consistent program implementation nationwide, while providing EPA and states flexibility in conducting certain program activities. Lead designations for both Fund-financed and non-Fund-financed sites should be determined based on interest, capability, and available resources.

2. ARAR review times. Several commenters supported the 30-day deadline for support agencies to identify ARARs, which applies to states without a SMOA. In addition, a few commenters stressed that timely ARAR identification is important for sites

in states with and without a SMOA to achieve rapid response actions, and suggested that states with a SMOA also be subject to the 30-day deadline. One commenter specifically stated that review times set forth in the proposed rule do not provide a sufficient amount of time to identify and communicate ARARs to the lead agency. A minimum of 30 days is necessary to give support agencies the opportunity to review the information located in various documents adequately.

EPA agrees that timely ARAR identification is important in expediting response actions. The 30-working day timeframe in § 300.515(h)(2) generally will apply to all lead and support agencies in the absence of a SMOA. However, EPA believes it is also important to allow EPA and states flexibility to agree on site-specific ARAR identification timeframes. A SMOA may reference the language of 300.515(h)(2), or specify a mutually agreed upon alternative; however, to be legally binding, any alternative timeframes negotiated in a SMOA must be documented in site-specific agreements.

3. Impact of SMOA on response agreements. Several commenters expressed concern that entering into a SMOA could impact agreements already in place to which the state and/or EPA is a party. In particular, this conflict could raise issues of due process, especially when existing agreements involve potentially responsible parties. To eliminate the possibility of this problem, commenters recommended that a provision be added to § 300.505 to ensure that a SMOA will not impact existing enforcement orders, consent orders, or cooperative agreements. EPA agrees with the commenters and will revise the NCP accordingly. The SMOA is a non-binding document, and therefore cannot alter existing legally binding response agreements.

4. Removal coordination and SMOAs. See preamble discussion to § 300.415 on state involvement in removal actions.

Final rule: Proposed § 300.505 is revised as follows:

1. Language has been reordered and modified to better describe the purpose and contents of SMOAs.

2. The final rule states in § 300.505(a) that EPA shall enter into SMOA discussions if requested by a state.

3. Language in the proposed rule making the SMOA a prerequisite in order for a state to recommend a remedy for EPA concurrence at a Fund-financed site or to be designated as the lead agency at a non-Fund-financed NPL site has been deleted.

4. Proposed § 300.505(a)(4)(i)(renumbered as final § 300.505(a)(3)) is revised to state that review times established

in a SMOA must also be documented in a site-specific cooperative agreement or Superfund state contract to be legally binding.

5. Proposed § 300.505(a)(4)(ii)(renumbered as final § 300.505(c)) has been revised to state that site-specific agreements entered into pursuant to CERCLA section 104(d)(1) shall be developed in accordance with 40 CFR Part 35 Subpart O and that the SMOA does not supersede any site-specific legal agreements.

6. A new § 300.505(d)(2)(viii) has been included to add other CERCLA implementation activity discussions to the SMOA process.

7. Language is added to 300.515(d)(2) stating that even though alternative timeframes for ARAR identification may be established in the SMOA, such timeframes must also be documented in a site-specific agreement to be binding.

8. In final rule §§ 300.5 (definition of "SMOA"), 300.500(a), 300.505(a)(1), (a)(3) and (d)(1), the word "removal" is being added before the word "pre-remedial" (see preamble discussion on § 300.415, "State involvement in removal actions").

9. Language on advisories, criteria or guidance in § 300.505(d)(2)(iii) has been modified (see preamble section on TBCs).

Name: Sections 300.510(c)(1) and (2) and (e). State assurances -- operation and maintenance and waste capacity.

Existing rule: 1985 NCP § 300.68(b)(2) provided that states must have met the requirements of CERCLA section 104(c)(3) prior to initiation of a Fund-financed remedial action. CERCLA section 104(c)(3)(A) required a state to assure all future maintenance of the remedial action for the expected life of such action. CERCLA section 104(c)(3)(C) provided that the state would pay or assure payment of 10 percent of the cost of the remedial action, including all future maintenance.

Proposed rule: Proposed § 300.510(c)(1) restated the requirements of the 1985 NCP (53 FR 51455-56). It indicated that, pursuant to CERCLA section 104(c), the state must provide assurance, prior to the remedial action, that it will assume responsibility for operation and maintenance (O&M) of the implemented remedial action for the expected life of such action. Proposed § 300.510(c)(2) stated that EPA may share, for up to one year, in the cost of operation of the remedial action to ensure that the remedy is operational and functional. Proposed § 300.435(f) provided, pursuant to CERCLA section 104(c)(6), that EPA will fund for up to 10 years measures to restore ground or surface water quality. Proposed § 300.510(e) described requirements on states providing a waste capacity assurance.

Response to comments: Several state commenters argued that CERCLA section 104(c)(3)(C) requires that 90 (or, in some cases, 50) percent of the cost of O&M will be federally funded. Some of the commenters also cite CERCLA section 104(c)(7), which refers to federal funding of O&M pursuant to CERCLA sections 104(c)(3)(i) and (6) and S.Rep. No. 96-848(1980). One commenter claimed that requiring a state to fund O&M costs entirely biases EPA's selection process to favor remedies that are less permanent and less effective, by minimizing short-term expenditures at the expense of greater state-funded O&M. Another commented that states have agreed to operation and maintenance of remedies.

EPA has followed a general policy of requiring states to assure the payment of operation and maintenance costs for Fund-financed remedial actions. Operation and maintenance costs are generally identified in the ROD and remedial design so that states have an opportunity to comment and recommend revisions to such costs. This policy is consistent with section 104(c)(3) of CERCLA, which provides that Fund-financed response actions may not take place until "the state assure[s] all future maintenance of the removal and remedial actions provided for the expected life of such actions as determined by the President...." EPA further believes that Congress has implicitly accepted this policy by providing in CERCLA section 104(c)(6) that a certain class of activities, namely those to operate and maintain treatment and other measures necessary to restore surface or ground water for up to ten years, are remedial action and, therefore, are subject to the general 90/10 or 50/50 cost share requirements. The statute goes on to provide that activities to maintain the effectiveness of those restoration measures, once protective levels are achieved or up to 10 years, whichever is earlier, are to be considered O&M (for which the state pays 100 percent under a long-standing policy) (see preamble discussion on § 300.435(f)).

CERCLA section 104(c)(3)(A) provides that "the state will assure all future maintenance of the removal and remedial action provided [in section 104] for the expected life of such actions as determined by the President." EPA believes that this language places this responsibility for the operation and maintenance of response actions -- including the funding aspect -- on the states. Indeed, Congress implicitly acknowledged this by carving out only a limited exception from O&M in CERCLA section 104(c)(6). As the House Committee on Public Works and Transportation noted in a discussion of the precursor to section 104(c)(6), "...ground or surface water cleanup will be completed as part of the remedial action, and not be left to operation and maintenance activities which must be funded by a state." H.Rep. 253, 99th Cong. 1st Sess., Part 5 at 10 (1985) (emphasis added). In addition, although a bill to require EPA to pay a cost share for O&M was considered during the SARA reauthorization process, it was not reported out of the 98th Congress. (See H. Rep. 890, 98th Cong., 2nd Sess., Part 1 at 4, 445 (1984), Report of the House Committee on Energy and Commerce.)

In addition, as noted under § 300.430(a)(1)(ii)(D), institutional controls may be required to provide for the protectiveness of human health and such institutional controls have a valid role in the remediation of a site when active treatment of a site is not practicable. Where institutional controls are employed as part of a response action, care must be taken to ensure that such controls are reliable and will remain in place. Therefore, when appropriate, as part of the O&M assurance required by CERCLA section 104(c)(3) and § 300.510(c) of this regulation, the state must assure that any institutional controls implemented as part of a remedial action at a site are in place, reliable, and will remain in place after the initiation of O&M. The final rule has been changed to reflect the need to maintain institutional controls when appropriate.

Further, the experience of the Superfund program has been that EPA's selection process does not favor remedies that are less permanent and less effective, by minimizing short-term expenditures at the expense of greater state-funded O&M. On the contrary, current data reveal that the trend has been toward the use of more permanent technologies. CERCLA section 121(b)(1) requires that EPA select a remedial action that is protective of human health and the environment, is cost-effective, and utilizes permanent technologies to the maximum extent practicable. In order to formulate a more consistent approach in selecting remedies at sites, nine selection criteria are used (see § 300.430). A remedy is not selected based on cost share alone, rather the selection of remedy process is based on a balancing approach of the nine criteria. In fact, EPA has modified the proposed approach to encourage selection of treatment alternatives by emphasizing the criteria of long-term effectiveness and permanence and reduction of toxicity, mobility, or volume through treatment in the final rule (see § 300.430(f)(1)(ii)(E)).

In another change in this section, the language in § 300.510(e) describing the requirements for providing the waste capacity assurance has been revised to codify language from CERCLA section 104(c)(9) and to reflect the passage of the October 17, 1989 date for applicability of this assurance under CERCLA section 104(c)(9). EPA generally will use the following to determine the adequacy of the state's assurance: (1) the plan submitted to EPA documenting the waste capacity availability, (2) the state's written commitment to implement the plan, and (3) the state's written commitment to implement any additional measures EPA deems necessary to provide for adequate waste capacity (see Assurance of Hazardous Waste Capacity Guidance, OSWER Directive No. 9010.00 (December 1988) and OSWER Directive No. 9010.00a (October 1989)).

Final rule: 1. EPA has revised § 300.510(c)(1) to state that any institutional controls associated with response actions are a part of the required CERCLA section 104(c) assurances.

2. EPA has revised § 300.510(e) to codify language in CERCLA section 104(c)(9) and to reflect the passage of the October 17, 1989 date for applicability of the waste capacity assurance. Also, the rule notes that the issue of whether or not Indian tribes are states for purposes of CERCLA section 104(c)(9) has not yet been decided by EPA.

Name: Section 300.510(f). State assurances - acquisition of real property.

Proposed rule: Section 300.510(f) proposed that if an interest in real property was to be acquired in order to conduct a response action, as a general rule, the state in which the property was located must have agreed to acquire and hold the necessary property interest. If it was necessary for the United States to acquire the interest in property to permit implementation of the response, the state must have agreed to accept transfer of the acquired interest on or before the completion of the response action.

Response to comments: Several commenters contended that CERCLA section 104(j)(2) provides that a state is required to assure that it will accept transfer of the interest following completion of the remedial action. They argue that states do not have to accept title to property until the remedial response is completed, not earlier, and that the determination of whether such property must be acquired does not lie solely with EPA, but must be made in consultation with the affected state. The commenters also object to the proposed rule's application to "response actions" instead of "remedial actions" as provided by CERCLA section 104(j)(2) because EPA does not have the authority to force a state to accept title to contaminated property after a removal action. Some commenters suggest that other mechanisms to implement response actions, such as voluntary consent, search warrants or court orders, should be used to implement response actions.

EPA agrees that other mechanisms such as voluntary consent, search warrants, and court orders may be used to implement response actions. However, in some circumstances it may be necessary to acquire an interest in real property for implementation of the response action. As stated in the proposed rule, the state in which the property is located must agree to acquire and hold the necessary property interest.

If the state intends to acquire property directly, but lacks authority to condemn or otherwise acquire it or is unable to do so in an expeditious manner, it may be necessary for the United States to acquire the interest in the property to permit implementation of the response. In such instances, the state must accept transfer of the acquired interest on or before completion of the response action. EPA would prefer that a state accept transfer of the acquired interest prior to completion of the response action. Of course, the state may pass title to its interest to another entity such as a political subdivision to hold, as the state deems appropriate. While ownership of such interest would not result in CERCLA liability pursuant to CERCLA section 104(j)(3), EPA understands that states are concerned about common law liability that could result from ownership (e.g., arising from injuries to persons coming on the property) and that they would prefer not to take title to such property until completion of the response action. EPA believes that it is not going beyond the statutory language to require a state to accept title "on or before" completion of the response action; the section merely gives the states the option to accept title prior to completion of the response action.

Although Indian tribes are not required to provide the CERCLA section 104(c) assurances, federally recognized Indian tribes are not exempt from providing the CERCLA section 104(j) assurance. However, EPA will consider, on a case by case basis, what assurances are necessary where there are legal barriers to a tribe's taking title to property rather than having it held in trust for the tribe by the United States.

Final rule: EPA is revising § 300.510(f) to state that the state must also accept transfer of any interest in acquired property that is needed to ensure the reliability of institutional controls restricting use of that property (see discussion above on § 300.510(c)(1)).

Name: Section 300.515(a). Requirements for state involvement in remedial and enforcement response.

Proposed rule: Proposed § 300.515(a)(1) stated that EPA would designate a state agency as the lead agency for a response action on the basis of whether or not it had "the capability to undertake such action." Language in the preamble to the proposed NCP (53 FR 51456) stated that EPA was currently considering more specific criteria, including: overall expertise, legal authorities, administrative and contracting capability, financial management systems, site complexity, availability of site-specific resources, past federal or state actions at the site, and past state cleanup activities.

Proposed § 300.515(a)(2) stated that for EPA-lead Fund-financed remedial planning activities, the state agency acceptance of the support agency role during an EPA-lead response shall be documented in a letter or a SMOA.

Section 300.515(a)(3) proposed that site-specific agreements were generally unnecessary for non-Fund-financed response actions unless a state intended to later seek credit for its actions.

Response to comments: 1. Section 300.515(a)(1). Commenters stated that the criteria stated in the proposed preamble should be revised to include: desire of the state to do the work, minimum legal ability to issue and enforce orders, a history of state involvement with federal Superfund activities in the state, and an ability to demonstrate adequate resources, including experienced personnel.

Criteria for lead agency designation were suggested by EPA in the preamble to the proposed rule (53 CFR 51394) but were not proposed as regulatory requirements. EPA continues to believe it appropriate to suggest, rather than require, that these criteria, along with the criteria suggested by the commenters, be considered during EPA and state discussions on designating a lead agency. Since conditions may differ among sites, EPA prefers to decide upon lead agency status by entering into separate discussions with the state for each response. If the state is chosen as the lead agency, 40 CFR Part 35 Subpart O contains the appropriate regulations regarding criteria for eligibility and award of funding for state involvement in Superfund response actions. Therefore, criteria for designating a lead agency have not been added to today's rule. A cross reference to Subpart O has been added in § 300.515(a).

Another comment stated that regulations governing Fund-financed response actions are silent on whether or not states are allowed to perform enforcement response activities the commenter contended were clearly allowed under CERCLA section 104. The comment proposed adding language to § 300.515(a)(2) clarifying that states are allowed to perform enforcement response activities.

EPA has modified § 300.515(e)(2)(i) to explicitly acknowledge the authority of states to conduct response actions at NPL sites under state law. The language specifies that a state will prepare the ROD (i.e., select the remedy), and may seek EPA's concurrence for non-Fund-financed state-lead enforcement actions. Such actions are conducted under authority of state law, not CERCLA. Additionally, revised § 300.505(b)(2)(iv) describes enforcement activities that may be conducted by states.

2. Section 300.515(a)(2). One commenter stated that the NCP should also permit support agency acceptance to be documented through a cooperative agreement. EPA agrees that state acceptance of the support agency role may also be documented in a cooperative

agreement. EPA allows state's to enter into support agency cooperative agreements to defray the cost of their participation in EPA-lead response, pursuant to 40 CFR 35 Subpart O. The support agency cooperative agreement is the most appropriate place to document the state's acceptance of the support agency role.

3. Section 300.515(a)(3). Since EPA has decided to not require the signing of a SMOA for specific state involvement activities, e.g. recommending a remedy to EPA, the language in this section needs to clearly define when a cooperative agreement may be signed. In all cases, EPA may enter into a cooperative agreement only at Fund-financed sites unless a state intends to seek credit pursuant to § 300.515. As defined at 40 CFR 35 Subpart O, cooperative agreements are intended to implement CERCLA funded response and should not be used to aid cleanup at non-Fund-financed sites.

Final rule: 1. A statement has been added at 300.515(a)(1) to clarify that 40 CFR Part 35 Subpart O contains further information regarding state involvement in response.

2. Section 300.515(a)(2) is revised to state that the state may document its acceptance of the support agency role in a letter, SMOA, or cooperative agreement.

3. Language in § 300.515(a)(3) is changed to clarify that cooperative agreements and Superfund state contracts are only appropriate for non-Fund-financed actions if a state intends to seek credit under § 300.510.

Name: Section 300.515(b). Indian tribe involvement during response.

Proposed rule: EPA proposed to provide for interaction with federally recognized Indian tribes whenever a CERCLA site was within Indian jurisdiction. As stated in proposed § 300.515(b), federally recognized Indian tribes generally may have the same roles and responsibilities under the NCP as do states. Indian tribes may be authorized to take the lead role for Fund-financed response activities through a cooperative agreement based on the following criteria: (1) the Indian tribe is federally recognized; (2) the tribe currently performs governmental functions to promote the health, safety, and welfare of its population or environment; (3) the tribe demonstrates the ability to carry out the necessary response actions according to the priorities and criteria established by the NCP; (4) the tribe can demonstrate that the necessary actions are within the scope of its jurisdiction; and (5) the tribe can demonstrate a reasonable ability to effectively administer a cooperative agreement.

Response to comments: Several commenters expressed concern that the criteria used to judge states' ability to be a lead agency seem to be different from the criteria used to judge the ability of Indian tribes to fulfill the same role. The requirement that tribes establish jurisdictional authority is not required of states, and has not been consistently applied to states in the past. Several commenters asserted that this is "blatant discrimination" and undermines EPA's efforts to work effectively with Indian tribes. Many commenters requested that EPA address the apparent disparity between criteria applied to states and Indian tribes.

A few commenters were also concerned about the criteria requiring Indian tribes to be federally recognized in order to undertake the lead role and identified a need to clarify which agency has the authority to govern cleanup activities at sites within the jurisdiction of an Indian tribe that is not federally recognized. Similarly, commenters were concerned about how EPA expects to resolve hazardous substance releases from sites on Indian land when the release extends beyond the boundary of the reservation. One commenter requested clarification about whether EPA will allow a state agency to work with these tribal councils under two party agreements.

In response, EPA proposed criteria in § 300.515(b) for evaluating whether Indian tribes had the capability to take the lead for Fund-financed response activities through a cooperative agreement. After reconsidering the criteria based on public comment, EPA believes that a distinction should be made in the final rule between criteria for Indian tribes to be treated substantially the same as states and for the eligibility of Indian tribal governments to receive funding, which is described in 40 CFR 35 Subpart O, for involvement through a Superfund cooperative agreement.

For an Indian tribe to assume the same responsibility as a state in Superfund response actions, the Indian tribe must be federally recognized and must currently perform governmental functions to promote the health, safety, and welfare of its population or environment. In addition, the tribe must have jurisdiction over the site at which response is contemplated, including pre-remedial activities. A similar jurisdictional requirement was not considered to be necessary for states whose jurisdiction clearly covers the entire state. However, the extent of Indian tribal jurisdiction may be less clear. A determination of whether a tribe has jurisdiction over a site should be made by EPA based on documentation submitted by the governing body of an Indian tribe. However, by making a determination that an Indian tribal government has jurisdiction for purpose of CERCLA response, EPA is not making a determination regarding jurisdiction for any other purpose.

When a hazardous substance release affects lands both within and beyond the boundaries of lands within the jurisdiction of an Indian tribal government, state participation is necessary. EPA will encourage coordination between states and Indian tribes when releases originate in the jurisdiction of one and affect the other. There is nothing to prohibit the tribe and state from entering into a two-party agreement to identify roles and responsibilities. The region will evaluate requests for lead agency designation to undertake response at such sites on a case-by-case basis in consultation with the affected governing body of the tribe and state. Federal-lead may be appropriate in such situations. A three-party Memorandum of Understanding (MOU) among EPA, the state, and governing body of the Indian tribe is recommended to define and coordinate roles, and ensure compliance with the requirements of section 121 of CERCLA for response activities prior to remedial action.

A federally recognized Indian tribe can apply for Fund monies through a Superfund cooperative agreement to defray the cost of its participation as a lead or support agency (the eligibility criteria to receive funding under a cooperative agreement are discussed at 40 CFR 35 Subpart O).

Final rule: The criteria in § 300.515(b) are modified and renumbered to enable an Indian tribe to assume the same responsibility as a state in Superfund response actions, if the tribe is federally recognized and currently performs governmental functions to promote the health, safety, and welfare of its population or environment. The tribe must also have jurisdiction over the site at which response is contemplated.

Name: Sections 300.425(e)(2), 300.515(c)(2) and (c)(3). State involvement in PA/SI and NPL Process. Section 300.515(h)(3). State review of EPA-lead documents.

Proposed rule: Proposed § 300.515(c)(2) provided that states have a minimum of 20 calendar days and a maximum of 30 calendar days to review releases to be proposed to be listed on the NPL. Sections 300.425(e)(2) and 300.515(c)(3) provided the same minimum/maximum time frames for states to review notices of intent to delete releases from the NPL. Section 300.515(h)(3) provided, in the absence of a SMOA, that states have a minimum of 10 working days and a maximum of 15 working days to provide comments on EPA-prepared RI/FSs, RODs, ARAR/TBC determinations, and RDs. States were provided a minimum of 5 working days and a maximum of 10 working days to comment on the proposed plan (see preamble to proposed rule at 53 FR 51456-57).

Response to comments: Several commenters disagreed with the minimum/maximum timeframes for review of EPA-lead documents. One stated that some of these documents, such as the RI/FS and ROD, are incredibly long and complex and such deadlines would be impossible to meet. The commenter argued that more time for review and comment must be provided but did not specify minimum/maximum timeframes. Another commenter argued that because reviewing state agencies generally have to coordinate with other state agencies, the timeframe for state review of EPA-lead documents should be 25 to 30 working days for RI/FSs, RODs, and ARAR/TBC determinations. One commenter stated that the proposed five to 10 day timeframe for review of a proposed plan is too tight and that 10 to 15 days would be more realistic. Another commenter stated that a minimum of 20 working days should be provided for state review of NPL listings and deletions, ARARs/TBC determinations, RODs, and RDs. The commenter also recommended a minimum of 30 working days on the final RI/FS and proposed plan. The commenter further suggested that all review times be expressed in terms of working and not calendar days.

Other commenters stated that EPA should be held to the same review times as states, and that EPA regions should be authorized to approve and extend the state review period without regulatory limitations. One comment stated that EPA should be bound by the same requirements for response and concurrence at state-lead sites as states are at EPA-lead sites. The commenter added that the rule should be revised so that if EPA fails to meet its deadline for comment, this will be considered a concurrence.

Further, several commenters made suggestions specifically regarding the procedures for state review of HRS packages. Two commenters stated that states should be given the opportunity to comment on and review sites before the listing decision has been made. Another commenter contended that 20 days is not sufficient time to review sites and that the minimum period for review should be extended to 30 days.

EPA accepts the recommendation that it be held to the same review times as states when it reviews state-lead documents. EPA believes that such review times should be the same for each phase of response regardless of lead agency designation. However, failure of either the state or EPA to respond shall not be construed as concurrence. While EPA intends to make all efforts necessary to meet agreed-upon deadlines, if EPA does not act within specified timeframes, it should not be interpreted as EPA's approval of an action.

With regard to the comments that the review times should be revised, EPA has decided not to revise the number of days specified in 300.515(h)(3) of the NCP for review of lead agency prepared documents by the support agency; such review times can be modified by a SMOA and made legally binding in a site-specific agreement, such as a cooperative agreement or Superfund state contract (the SMOA cannot be used to alter review times on a site-specific basis). If a different timeframe agreement is not agreed to in the site-specific agreement, EPA and the state will be required to meet the deadlines stated in the NCP. EPA also has decided to use working days for all review time periods and has changed the rule accordingly.

With regard to the pre-remedial process, states already are active partners, and indeed, it is often the state environmental agency that performs the PA/SI. Even when the state does not perform a PA/SI, it often provides essential information concerning a release to EPA. Thus, states generally do provide input on potential NPL sites before the listing decision has been made. However, EPA is willing to work with states to develop procedures for receiving more input on the listing decision itself. EPA believes that two considerations must be kept in mind. First, it may not be appropriate to provide draft HRS packages to those states that would be required by their state law to release such documents to the public upon request. EPA considers these documents predecisional, and does not release them to the public during the rulemaking process. Second, EPA believes that state review of NPL sites should come toward the beginning, rather than the end, of the HRS process; in this way, new information provided by states could be incorporated without delaying a proposed NPL update.

In the deletion process, where state concurrence on notices of intent to delete are required, EPA is revising the duration of review in §§ 300.435(e)(2) and 300.515(c)(3) to 30 working days.

Final rule: Proposed §§ 300.425(e)(2), 300.515(c) and (h) are revised as follows:

1. EPA is changing the language in §§ 300.425(e)(2), 300.515(c)(2) and (3) regarding the time limit for review of releases considered for listing on the NPL and for review of notices of intent to delete releases from the NPL. The timeframe is changed from a minimum of 20 and a maximum of 30 calendar days to 30 working days. The language also notes that this timeframe will be followed to the extent feasible.

2. Section 300.515(h)(3) is renamed to refer to "support agency" and "lead agency" and revised to read that the lead agency shall provide the support agency an opportunity to review and comment on the RI/FS, proposed plan, ROD, and RD, and any proposed determinations on potential ARARs and TBCs. The support agency shall have a minimum of 10 working days and a maximum of 15 working days to provide comments to the lead agency on the RI/FS, ROD, ARAR/TBC determinations, and RD. The support agency shall have a minimum of five working days and a maximum of 10 working days to comment on the proposed plan.

Name: **Sections 300.505 and 300.515(d). Resolution of disputes.**

Proposed rule: The preamble to proposed Subpart F stated that a region and a state may adopt a dispute resolution process to be used to resolve any differences that might impede the response process (53 FR 51457). Differences should be addressed at the staff level first and raised to management if a mutually acceptable solution is not attained. The preamble further stated that a region and a state could jointly raise the dispute to the Assistant Administrator for Solid Waste and Emergency Response for a final determination. Alternatively, a region and a state may establish a different dispute resolution process in a SMOA.

Proposed § 300.515(d) stated that if EPA intended to waive any state-identified ARARs or did not agree with the state that a certain state standard was an ARAR, EPA shall formally notify the state when it submitted the RI/FS report for state review or responded to the state's submission of the RI/FS report. The preamble also stated that EPA, operating in its oversight role for CERCLA enforcement actions, would resolve ARARs disputes between the lead agency and PRPs.

Response to comments: Commenters expressed dissatisfaction with the role of EPA as the final judge in ARAR disputes. One commenter suggested the use of an "alternate dispute resolution" process, with a third party offering a non-binding opinion. Another commenter proposed the incorporation of a state/EPA dispute resolution into a SMOA to be binding on both parties.

In response, EPA believes that its responsibility to ensure that remedies conform to the mandates of CERCLA justify EPA's role in resolving ARARs disputes. ARARs determinations are a significant component of selecting such remedies. Moreover, ARARs determinations may directly affect the cost of a remedy and EPA is required by CERCLA to ensure consistent use of Fund monies. EPA concludes, therefore, that it is necessary and appropriate that EPA, rather than a third party, will resolve ARARs disputes.

EPA encourages, but does not require, inclusion of dispute resolution clauses in their SMOAs. Any resolution process should encourage timely resolution of disputes which could impede the response process. EPA is currently developing guidance on dispute resolution procedures.

One commenter favored the resolution of all disagreements with states regarding ARARs waivers before the RI/FS report is completed and before the proposed plan is made available to the public. EPA believes, as a policy matter, this is an appropriate suggestion and will, to the extent practicable, attempt to resolve all ARARs disputes before the proposed plan is issued to the public. Because some ARARs may still be unknown at the time of the RI/FS, it may not be possible to resolve all ARARs disputes by this time.

Another commenter recommended the inclusion of PRPs into the dispute resolution process when a PRP disagrees with EPA's assessment of a site's ARARs. This commenter suggested an informal meeting between PRPs and the EPA Regional Administrator to discuss disagreements, followed by a written decision by the appropriate Regional Administrator. EPA believes that this is not necessary because PRPs have the opportunity to express disagreement over ARARs decisions in their comments on the proposed plan. Further, if the PRP conducts an RI/FS pursuant to a consent order or decree, procedures for resolving ARARs disputes are usually contained in such orders or decrees.

Final rule: EPA is promulgating the rule as proposed except that the language on advisories, criteria or guidance in §§ 300.515(d), (d)(1) and (2) and 300.515(h)(2) has been modified (see preamble section on TBCs above).

Name: Section 300.515(e)(1) and (2). State involvement in selection of remedy.

Proposed rule: Proposed § 300.515(e) discussed the roles of EPA and the state in the selection of remedy process. It reflected the evolution of the EPA/state partnership in recent years by providing the state, when it was the lead agency, with responsibilities in the selection of remedy process. This new concept would be applicable to both Fund-financed and non-Fund-financed actions in which the state as lead agency would recommend the remedy and provide EPA an opportunity to concur with and adopt the remedy. This recommendation/concurrence approach was in keeping with the statutory requirement to provide substantial and meaningful involvement in the initiation, development, and selection of remedial actions (see preamble to proposed NCP at 53 FR 51456-59).

Specifically, § 300.515(e)(1) described how EPA and the state will interact during the development and concurrence of the proposed plan. The lead agency shall prepare a proposed plan upon conclusion of the RI/FS. Once completed the support agency shall be given an opportunity to comment and concur; however, if agreement cannot be reached the proposed plan shall be published with a statement explaining the support agency's concerns regarding the plan.

Section 300.515(e)(2) provided further information regarding EPA and state involvement in the preparation of a ROD. For all EPA-lead sites, EPA shall prepare the ROD and provide the state an opportunity to concur with the recommended remedy. For Fund-financed state-lead sites, EPA and the state shall designate sites for which the state shall prepare the ROD and seek EPA's concurrence and adoption of the remedy specified therein and sites for which EPA shall prepare the ROD and seek the state's concurrence. For non-Fund-financed state-lead enforcement response actions taken at NPL sites, EPA and the state may designate sites for which the state shall prepare the ROD and seek EPA's concurrence in and adoption of the remedy specified therein.[24] Either EPA or the state may choose not to designate a site as state-lead.

Response to comments: 1. Review and publication of proposed plan. In cases where the state has the lead, one commenter questioned whether the state should be allowed to publish a proposed plan without EPA's prior approval.

EPA agrees that in Fund-financed state-lead remedial response, EPA shall always be given the opportunity to review the proposed plan before it is published. Whenever possible EPA and the state shall try to come to agreement; however, if no concurrence can be reached, the state shall not publish the plan and EPA may assume the lead for completing the proposed plan and ROD. At non-Fund-financed state-lead sites, the state may publish the proposed plan without EPA's approval; however, EPA still retains the right to proceed under its own CERCLA authorities if necessary to ensure compliance with section 121 and other pertinent provisions of CERCLA. If the site is EPA-lead or EPA resumes the lead from the state, the EPA may publish the proposed plan without state approval; however, as discussed below the state must still provide its CERCLA 104(c) assurances before remedial action can begin. As presented in the proposed and final regulation, when agreement cannot be reached the lead agency shall include a statement describing the support agency's concerns with the proposed plan.

2. Development and selection of the ROD. Many commenters strongly supported concurrence by the support agency for remedies recommended by the lead agency, regardless of whether state or EPA has the lead. Several commenters strongly supported this concurrence as an important sign of progress toward smoothing the relationship between EPA and the states by placing them on more equal ground. These commenters stressed that concurrence indicates that EPA understands that the state is the ultimate caretaker of Superfund sites, and, therefore, must have a strong voice in what happens at a site. Several commenters emphasized that concurrence should be based on the principle that the lead agency is just that and support agency oversight should be

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[24] Non-Fund-financed state-lead response action means that a state is responding to a release pursuant to state law, not CERCLA. CERCLA enforcement functions may not be delegated to states, except as specifically authorized under CERCLA.

minimized. Most commenters stressed that this is the best process to maximize the use of limited government resources and facilitate the timely cleanup of Superfund sites.

A few commenters emphasized the distinction between giving the state the "opportunity to concur" and having concurrence as a prerequisite in various stages of EPA-lead actions. One commenter gave the example that state concurrence is not a prerequisite in the issuance of a ROD by EPA. However, EPA's concurrence is required in the issuance of a ROD for state-lead Fund-financed actions. One commenter stated that "concurrence," as set forth in § 300.515(e), was contrary to the meaning of the word. The commenter noted that if the state does not concur with the remedy, EPA should not go forward with it.

EPA's intention in this section of the proposed rule on concurrence was to stress the opportunity for dialogue between EPA and the state in the remedy selection process. Although, as a matter of policy, EPA retains responsibility for selecting the remedy, it is important for both parties to concur in the selected remedy, whenever possible, to avoid problems during implementation of the remedy.

EPA has decided not to revise the requirement that EPA's concurrence is required before a state may proceed with a Fund-financed response action. However, this does not prevent a state from attempting to proceed with the response action using their own funds or enforcement authorities, except as limited by CERCLA section 122(e)(6). If a state decides to pursue this avenue, it may not claim credit pursuant to § 300.510(b)(2) for remedial action expenses since EPA never concurred with the selected remedy, and the state action may be subject to possible preemption under CERCLA section 122(e)(6) if the state uses its own enforcement authorities to implement such action. EPA will not be bound by a state action or any EPA/state agreed-upon action since new information may arise and create the need for additional response at the site in order for the remedy to protect human health and the environment.

Regardless of whether concurrence was obtained on the selected remedy at this stage in the response process, both EPA and the state have another opportunity available to them to express disapproval of the selected remedy. The state's CERCLA section 104 assurances are required prior to the implementation of remedial action conducted under section 104 of CERCLA. If the state, at this time, still disagrees with the selected remedy, it may demonstrate nonconcurrence with the remedy by withholding its assurances. Likewise, if EPA disagrees with the selected remedy, EPA may withhold Fund money for implementation of the remedial action or section 122(e) approval for a PRP remedial action. For state-lead sites, if no agreement can be reached, the state has the option of attempting to proceed with implementation of the remedy using its own funds, although EPA is not bound by that action. EPA may not proceed with a Fund-financed action without the state's assurances.

Some comments received regarding the criteria for lead agency designation (53 FR 51456) also identified the need to address the criteria used to designate the lead in the preparation of the ROD since the determination of whether the state has the capability to prepare the ROD is closely linked to this issue. As discussed earlier, EPA is not incorporating in today's rule any criteria for lead agency designation. Instead a decision regarding preparation of the ROD shall be made in consultation with EPA and the state on a case-by-case basis. All agreements and decisions shall be documented in a site-specific agreement and not in a SMOA.

Final rule: Proposed § 300.515(e) is revised as follows:

1. Language is added in final § 300.515(e)(1) to clarify that the state may not publish a proposed plan which EPA has not approved. In such event, EPA may assume the lead from the state at Fund-financed sites if EPA and the state cannot agree on a proposed plan.

2. EPA is adding a clause in § 300.515(e)(2)(i) to designate the site-specific agreement as the proper place to identify whether EPA or the state shall prepare the ROD at Fund-financed state-lead sites.

3. EPA clarifies in § 300.515(e)(2) that EPA must concur in writing with a state-prepared ROD in order for EPA to be deemed to have approved the state's decision.

Name: Whether states should be authorized to select the remedy at NPL sites.

Proposed rule: Although the preamble to the proposed revised NCP did not solicit comments on the appropriateness of authorizing states to select remedies at NPL sites, many commenters submitted comments calling for EPA to authorize states to select remedies at NPL sites, going further than the proposed concurrence concept.

Response to comments: Comments were received from states or state organizations on this topic. Many commenters believed that CERCLA section 104(d)(1) currently allows EPA to authorize states to select the remedy at NPL sites. One commenter argued that the NCP should spell out procedures and criteria used to authorize states to select a remedy under existing CERCLA 104(d)(1). Another commenter stated that unless states are provided the authority and responsibility to select remedies at NPL sites, states believe that their time and effort is better spent working on non-NPL sites where they are not duplicating effort with EPA. States would be more reluctant to request lead agency designation at an NPL site.

One commenter contended that authorizing states to select remedies is consistent with CERCLA 104(d)(1). If, however, EPA will not completely authorize states to select remedies, this commenter recommended granting authority to states for sites where remedial actions will cost up to $10 million.

Another commenter stated that the agency making a remedy recommendation or actually selecting the remedy should be a function of which agency conducted the RI/FS at the site.

In response, EPA acknowledges that several states have their own "superfund" programs and is encouraged by their willingness to take on an even greater role in cleaning up sites. EPA believes, however, that it is not appropriate at this time to turn over the final decision-making authority on remedy selection to states. While Congress appeared to contemplate an increased role for states in the remedial process through enactment of CERCLA section 121(f), EPA believes that it should retain primary responsibility for the federal Superfund program. EPA intends, however, that the concurrence process provide a significant and meaningful role for state involvement in the cleanup process. EPA believes that if the state is the lead agency for the RI/FS, it generally should recommend a remedy for EPA's adoption. Further, keeping the final responsibility for remedy selection within EPA (rather than dividing it among the 50 states and EPA) furthers the goal of ensuring consistency among remedies implemented at sites.

EPA notes, however, that for non-Fund-financed state-lead enforcement sites, the state may select the remedy (§ 300.515(e)(2)(ii)), although EPA shall not be deemed to have approved of the remedy absent formal concurrence. In such cases, the state is proceeding under the authority of state law and could take a similar action whether or not the site was subject of CERCLA action.

Final rule: There is no rule language on this issue.

Name: Section 300.515(f). Enhancement of remedy.

Proposed rule: Section 300.515(f) provided that if a state determined that a proposed Fund-financed remedial action should comply with substantive state standards that EPA has determined are not ARARs, or with state ARARs which EPA has determined to waive pursuant to CERCLA section 121(d)(4), the state shall fund the entire additional cost associated with compliance with such ARARs. The state may be required to continue the lead for the RD/RA or for the additional requirements if it is a state-lead

Fund-financed project or to assume the lead for remedial design and construction, or for the additional requirements only, if the project is federal-lead.

The proposed rule further provided that if a state determines that a Fund-financed remedial action should exceed the scope of the selected remedy, i.e., an enhancement of the selected remedy, the state shall fund the entire additional cost associated with such enhancement. The state may be required to assume the lead for the remedial design and construction of the remedy or only for the state-funded enhancement if that enhancement can be conducted as a separate phase or activity.

The proposed rule also reflected CERCLA section 121(f)(2) which provides that if a state determines that a remedial action under sections 106 and 122 of CERCLA should attain state requirements that EPA and a federal district court have determined need not be met in accordance with criteria in CERCLA section 121(d)(4), the state shall fund, and may be required to undertake, the additional work.

Response to comments: Several commenters questioned the authority of EPA to require states to pay for enhancements or to assume the lead in cleanups when state ARARs are waived or state standards are deemed not to be ARARs. Commenters argued that EPA has no authority under CERCLA to impose these requirements on states, even if a state rejects the EPA-selected remedy in favor of a more extensive cleanup.

In response, as a threshold matter, no state is "required" to seek an enhancement of a remedy selected under CERCLA. The issue is, where a state wishes to enhance or supplement an EPA-selected remedy, under what circumstances may it do so, and who should pay for and supervise the supplemental action. The answers to these questions are complicated, and require a thorough discussion of the situations in which enhancements may be appropriate, and EPA's view on state and federal responsibilities for enhancements.

It is important to note at the outset that states already have significant opportunities during the RI/FS process leading up to remedy selection to suggest to EPA that a proposed remedy should attain certain standards, or that the proposed remedy should be expanded in scope. As explained earlier in this preamble, the states may either act as the lead or support agency for Fund-financed actions (§ 300.500(b)), and have a clear opportunity to identify their potential ARARs -- i.e., promulgated state requirements that are more stringent than federal requirements (§ 300.400(g)(4)) -- early in the process (§ 300.400(g)(1) and (5)). The lead agency will then seek agreement from the support agency on a proposed ROD; certain requirements will then be found to be ARARs, and others may be found not to be

ARARs, or to be appropriate for waiver under one of the limited waiver categories set out in § 300.430(f)(1)(ii)(C). The proposed plan will then be issued for public comment, and after consideration of state and public comments, EPA will select the final remedy.

Through this process, EPA hopes to reach agreement with the affected state both on the appropriate scope of the selected remedy, and on those state law standards that should be met. EPA has specifically discussed in this rule a procedure for dispute resolution with the states in order to foster agreement on ARARs (§§ 300.515(d)(3) and (4)). Thus, EPA contemplates that in many cases, State ARARs issues, and extent of remedy issues generally, will be resolved during the remedial evaluation and selection process outlined in the NCP. Where such requirements do become part of the EPA-selected remedy, they would be paid for according to the appropriate cost share in CERCLA section 104 (for Fund-financed actions).[25]

Even after the ROD has been signed, the state may ask EPA to make changes in the selected remedy, or to expand the scope of the remedy. If EPA agrees that the state's suggestions are appropriate and necessary to protect human health and the environment, EPA may include the changes in the selected remedy through a ROD amendment or explanation of significant differences (consistent with final rule § 300.435(c)(2)); in the case of a Fund-financed remedy, EPA would share in the costs of the modified or additional activity. If EPA concludes that the state-suggested changes or expansions are not necessary to the selected remedial action, then EPA will not modify the ROD or pay for (or order) the additional action; however, EPA may still decide to allow the additional action to proceed concurrent with the EPA-selected remedy.

Where EPA finds that the proposed change[26] or expansion is not necessary to the EPA-selected remedy, but would not conflict or be inconsistent with it, EPA may agree to integrate the

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[25] Where EPA and the state disagree on a remedy selection, a state has the option of withholding its state assurances, thereby preventing the remedy from proceeding as a Fund-financed action (although EPA could initiate an enforcement action), and for EPA enforcement actions, a process is available for states to challenge a decision by EPA to waive an ARAR (CERCLA section 121(f)(2)(B)). These are, however, extreme measures, and the Agency's goal is to reach agreement with states through the normal remedy selection process.

[26] These proposed "changes" could include the attainment of a particular state standard that EPA found not to be an ARAR, or waived.

proposed change or expansion into the planned CERCLA remedial work, but only if the state agrees to fund all necessary changes or additions, and to assume the lead for supervising the state-funded component of the remedy (or, if EPA determines that the state-funded component cannot be conducted as a separate phase or activity, for the remedial design and construction of the entire remedy).[27] Although one commenter questioned the propriety of having the state pay for such changes, EPA believes that it is both reasonable and appropriate for the states to pay for and supervise tasks that they have requested and that EPA has not selected as part of its remedy. Placing these responsibilities on states is also consistent with the approach set out by Congress in CERCLA section 121(f)(2)(B), when a state seeks to implement an ARAR that has been waived by EPA.

For example, the state may want the cleanup of groundwater to attain water quality levels beyond those required under CERCLA, and thus may wish to maintain a pump-and-treat system longer than deemed necessary in the ROD. Similarly, the state may request additional work that falls outside the scope of the design and construction at the site, such as the extension of a water line outside the Superfund site. Such changes or expansions that would not conflict or be inconsistent with the EPA-selected remedy would generally be accommodated, on the condition that the state fund and supervise the change or expansion. (EPA would provide notice to the public where such accommodations affect the selected remedy.)

However, in cases where EPA concludes that a state-proposed change or expansion would conflict or be inconsistent with the EPA-selected remedy, the suggested change should not go forward.

EPA does not believe it would be appropriate to allow the state to proceed with proposed changes to EPA's lawfully-selected remedy without EPA approval. Indeed, to do so would be tantamount to giving the states a veto power over EPA remedial action decisions, contrary to Agency policy (discussed earlier in this preamble) that EPA should retain the final authority to select CERCLA remedies. Further, allowing states to go forward with actions inconsistent with those being implemented by EPA would likely result in delays in the cleanup of Superfund sites, and could potentially create unsafe working conditions for remedial action contractors.

Consistent with this discussion, final rule § 300.515(f) has been revised to better reflect the conditions under which state-suggested changes to, or expansions of, EPA-selected remedial actions should go forward.

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[27] Often the state is the most appropriate entity to take the lead for such combinations of Fund-financed and non-Fund-financed actions because of contracting issues.

Finally, as noted above, there is a process provided for in CERCLA section 121(f)(2) for states to seek to require remedial actions secured under CERCLA section 106 to conform to waived ARARs. EPA believes it is appropriate for the final rule simply to reference the procedures set out in the statute, rather than attempt to characterize them. Thus, the final rule on this point has also been changed.

Final rule: Section 300.515(f) is revised as follows:

> (f) Enhancement of remedy. (1) A state may ask EPA to make changes in or expansions of a remedial action selected under Subpart E.
>
> (A) If EPA finds that the proposed change or expansion is necessary and appropriate to the EPA-selected remedial action, the remedy may be modified (consistent with § 300.435(c)(2)) and any additional costs paid as part of the remedial action.
>
> (B) If EPA finds that the proposed change or expansion is not necessary to the selected remedial action, but would not conflict or be inconsistent with the EPA-selected remedy, EPA may agree to integrate the proposed change or expansion into the planned CERCLA remedial work if:
>
> (i) the state agrees to fund the entire additional cost associated with the change or expansion; and
>
> (ii) the state agrees to assume the lead for supervising the state-funded component of the remedy or, if EPA determines that the state-funded component cannot be conducted as a separate phase or activity, for supervising the remedial design and construction of the entire remedy.
>
> (2) Where a state does not concur in a remedial action secured by EPA under CERCLA section 106, and the state desires to have the remedial action conform to an ARAR that has been waived under § 300.430(f)(1)(ii)(C), a state may seek to have that remedial action so conform, in accordance with the procedures set out in CERCLA section 121(f)(2).

Name: Section 300.515(g). State involvement in remedial design/remedial action.

Proposed rule: Proposed § 300.515(g) read that for Fund-financed remedial actions, the lead and support agencies shall conduct a joint inspection to determine that the remedy has been constructed in accordance with the ROD and the remedial design.

__Response to comments__: Several state commenters contended that the states' interest in cleaning up sites and their participation in 10 percent of the costs of remedial actions demands a much larger role in remedial design/remedial action than just a final joint inspection. Therefore, more detailed and specific language should be provided in the final NCP as it pertains to state role in the implementation of remedial actions. Specific recommendations included that both EPA and a state, regardless whether the action is EPA or state-lead, should review and comment on the 30, 60, and 95 percent designs, as well as agree on the final design and specifications.

Also, commenters recommended that both parties should discuss significant changes and must consult prior to reopening a ROD. Other suggested areas for EPA and state interaction were bid procurement, review of contract prior to award, construction progress meetings, construction oversight, change order negotiations and approvals above limits specified in the cooperative agreement. One of the commenters stated that while these issues may be addressed in a SMOA, minimum requirements should be specified in the NCP in the absence of a SMOA.

EPA agrees that the state role during remedial design and remedial action is very important. However, rather than specify the minimum requirements for state involvement during remedial design and remedial action in the final rule, the final rule will specify that state/EPA interaction during remedial action will be described in site-specific agreements: either a cooperative agreement or Superfund state contract. This will provide flexibility on a site-by-site basis. The range of responsibilities assumed by states under site-specific agreements or SMOAs is necessarily constrained by the legal limits on delegation of EPA authority, e.g., limitations on delegating enforcement authority.

__Final rule__: Section 300.515(g) will be retitled as "State involvement in remedial design and remedial action." The following sentence is added to § 300.515(g): "The extent and nature of state involvement during remedial design and remedial action shall be specified in site-specific cooperative agreements or Superfund state contracts, consistent with 40 CFR Part 35 Subpart O."

__Name__: Section 300.520(a) and (c). State involvement in EPA-lead enforcement negotiations.

__Proposed rule__: Section 300.520(a) stated that "EPA shall notify states of response action negotiations to be conducted by EPA with potentially responsible parties during each fiscal year." Section 300.520(c) stated: "The state may be a party to such settlements in which it is a participant in the negotiations."

Response to comments: One comment proposed revising § 300.520(c) so that states may become a party to a settlement whether or not they first participate in the negotiations. Another comment asked that § 300.520(a) be expanded to require EPA to notify states not only that PRP negotiations are going to be held, but where and when. One commenter stated that notice is frequently too late for states to participate meaningfully.

EPA recognizes that there may be circumstances where the state is involved in initial negotiations, decides not to be heavily involved in all sessions, but may want to sign the negotiated decree without modifying it. EPA agrees that the proposed revision would better reflect the statutory intent of CERCLA section 121(f)(1)(F), which requires: "Notice to the state of negotiations with potentially responsible parties regarding the scope of any response action at a facility in the state and an opportunity to participate in such negotiations and, subject to paragraph (2), be a party to any settlement." However, it is also important to note that while it may be appropriate to allow states to join settlements at any time, EPA may conclude settlement negotiations with PRPs without state concurrence [CERCLA section 121(f)(2)(C)].

Final rule: Proposed § 300.520(c) is revised as follows; "The state is not foreclosed from signing a consent decree if it does not participate substantially in the negotiations."

Name: Dual enforcement standards.

Proposed rule: Subpart F discussed provisions for "substantial and meaningful state involvement" in the cleanup process. The subpart introduces the EPA/state superfund memorandum of agreement (SMOA), a non-binding agreement between EPA and a state to define respective governmental roles for state participation in pre-remedial, remedial and enforcement response actions. The SMOA recognized state leadership while preserving EPA review and concurrence powers, and EPA's right to proceed under CERCLA to ensure compliance with section 121 and other provisions of CERCLA. At EPA-lead sites, the state may disagree with EPA's choice of remedy. Section 300.505 described the procedures to develop SMOAs. Section 300.515 outlined state involvement in remedial actions, including a discussion of what options are available when states and EPA disagree on cleanup standards.

Response to comments: EPA received comments stating that the proposed NCP was unclear on whether states have the right to require PRPs to meet more stringent state requirements in addition to CERCLA-specified ARARs for a Fund-financed or an enforcement action. The large number of comments EPA received on this issue reflects a strong concern that dual and potentially conflicting standards will be enforced by EPA and states. EPA acknowledges that this is an area requiring further review and evaluation. EPA believes, however, that mechanisms in the final NCP can be used to minimize the possibility of conflicting standards imposed upon PRPs.

One such mechanism is the SMOA. An important purpose of SMOAs is to establish a working relationship between EPA and a state on coordinating their respective involvement in remedy selection and enforcement strategies at sites throughout that state. Another mechanism is the concurrence process described in the NCP. The degree to which EPA (or another federal agency) and a state can concur on each other's remedies will reduce the need for EPA to take a separate action at a site or for the state to challenge remedies selected by EPA which are covered by CERCLA sections 121(f)(2) or (3). The final NCP places great emphasis on the concurrence process (see § 300.515(e)(2)) and on dispute resolution (see preamble section above) to encourage EPA, other federal agencies and states to resolve differences among them and select the single remedy for a site that will fulfill the objectives and requirements of each agency.

A commenter objected to the statement that EPA silence on a state-lead remedy (selected under state law) cannot be construed as concurrence and that EPA retains the right to proceed with a remedy under CERCLA. In response, EPA may not be an active participant in negotiations between a state and PRPs at state-lead sites but EPA encourages states to notify EPA of such negotiations and seek EPA concurrence on the remedy selected. In the preamble to the proposed NCP, however, EPA cautioned that EPA will not be bound to any decisions made by a state if EPA does not concur on the remedy (see 53 FR 31458). EPA believes that it has a responsibility to bring an action under CERCLA when necessary to protect human health and the environment. EPA intends that the processes established in the final NCP will reduce the need for such action but EPA must maintain its ability to perform statutory mandates.

Other commenters contended that states should not be allowed to contest an EPA-lead remedy if they did not participate in negotiations, and suggested that some mechanism be included in the NCP to require EPA and state participation and concurrence in all remedial action settlements at NPL sites. A similar comment recommended that EPA and states be joint signatories on more settlements. In response, EPA encourages concurrence by both EPA and a state but does not believe that it is necessary to require such concurrence on all settlements or remedies. EPA and states are encouraged to plan ahead and decide on the extent of their involvement in the work necessary to reach settlements and decide on remedies. EPA and the state can also agree that even if one agency is not substantially involved in the work, that agency may still sign or concur on the settlement or the ROD. In fact, § 300.520(c) of the final NCP provides that a state is not foreclosed from signing a consent decree if it does not participate substantially in the negotiations. In addition, a state is not required to participate in settlement negotiations in order to challenge a remedy under CERCLA section 121(f)(2) or (3). EPA believes, however, that involving the state in such negotiations may reduce the circumstances under which a state would resort to a statutory challenge.

Finally, a commenter recommended that the NCP grant states that participate in settlement negotiations for actions taken under CERCLA sections 106 or 122, the right to review, comment on and approve/disapprove work undertaken by PRPs. In response, a state may participate in settlement discussions for actions to be taken under sections 106 or 122. The oversight activities that may be conducted by a state, however, are limited by the extent to which EPA can delegate enforcement responsibilities under CERCLA section 106. States may approve or disapprove work by PRPs when conducting an enforcement action under state law.

Final rule: There is no rule language on this issue.

SUBPART G -- TRUSTEES FOR NATURAL RESOURCES

Section 107(a)(4)(C) of CERCLA imposes liability for the injury, destruction, or loss of a natural resource, including the costs of a natural resources damage assessment, resulting from the release of hazardous substances. Section 107(f)(1) of CERCLA provides that only properly designated federal trustees, authorized representatives of an affected state, or Indian tribes can pursue a section 107(a)(4)(C) action. Clean Water Act (CWA) section 311(f) imposes similar liability for discharges of oil and hazardous substances into navigable waters of the United States.

Pursuant to section 1(c) of Executive Order 12580 (52 FR 2923, January 29, 1987), and in accord with CERCLA section 107(f)(2)(A) and section 311(f) of the Clean Water Act, the Secretaries of Defense, the Interior, Agriculture, Commerce, and Energy are among the agencies that are designated in the NCP as federal trustees for natural resources. Those federal trustees act on behalf of the President in assessing damages to natural resources from discharges of oil or releases of hazardous substances, pollutants, or contaminants. Subpart G outlines the designations of federal trustees under CERCLA. Although the 1986 amendments to CERCLA necessitated few changes to the NCP provisions on natural resources, the major objective for this proposed revision is to make the subpart more readable and understandable to those who are not familiar with trustee agency authorities. Because the primary purpose of this subpart is to list natural resource trustee agency designations so as to ensure prompt notification as required by CERCLA, the proposed changes reflect an overriding concern that trustee jurisdictions be described as accurately as possible.

Section 301(c) of CERCLA requires the promulgation of rules for the assessment of damages for injury to, destruction of, or loss of natural resources resulting from a discharge of oil or a release of a hazardous substance under CERCLA and the Clean Water Act. Pursuant to Executive Order 12580, section 11(d), the responsibility to promulgate these regulations has been delegated to the Department of the Interior (DOI). DOI has promulgated rules for the assessment of damages for the injury to, destruction of, or loss of natural resources (see 43 CFR Part 11). Parts of those rules were struck down by the U.S. Court of Appeals for the District of Columbia Circuit on July 14, 1989, and remanded to the Department of the Interior for further consideration. See State of Ohio v. U.S. Department of the Interior, 880 F.2d 432 (D.C. Cir. 1989), and State of Colorado v. U.S. Department of the Interior, 880 F.2d 481 (D.C. Cir. 1989).

The use of the procedures described in DOI's rule, 43 CFR Part 11, is optional. However, the results of an assessment performed in accordance with the DOI rule by a federal or state trustee, or Indian tribe, if reviewed by a federal or state trustee, shall be given the status of a rebuttable presumption in an action to recover damages for injuries to, destruction of, or loss of natural resources. Whether or not the procedures in 43 CFR Part 11 are followed, a trustee agency may decide to proceed with a range of information gathering and other trust-related activities.

The following are summaries of comments on the proposed Subpart G and EPA's responses.

Name: Section 300.600. Designation of federal trustees.

Existing rule: Section 300.72 of the 1985 NCP designated those federal officials who are to act on behalf of the public as trustees of federal natural resources. It also described the types of resources that the agencies manage and gave examples of the resources that might be under their trusteeship.

Proposed rule: In the proposed rule (renumbered § 300.600), EPA attempted to clarify and define as accurately as possible the federal agencies responsible for specific resources. It did this by delineating in the paragraph headings the federal agency or type of federal agency responsible for natural resources. In addition, EPA proposed to change the narrative to describe in more detail the resources that agencies manage and to give examples of resources that might be under an agency's trusteeship.

The proposed rule designated the Secretary of Commerce as a trustee. The proposed rule also provided that the Secretary shall act with the concurrence of other federal agencies when the resources or authorities of other agencies are involved. The Secretary is, however, a trustee in his own right also, pursuant to various statutory authorities.

The proposed rule also described federal agency jurisdiction over certain natural resources. The 1985 NCP designated the Secretary of Commerce as the trustee for natural resources in or under "waters of the contiguous zone and parts of the high seas...." The proposed rule includes under the Secretary's jurisdiction, the natural resources "in or under tidally influenced waters, the waters of the contiguous zone, the exclusive economic zone, and the outer continental shelf...."

The proposed rule also deleted the 1985 NCP's (§§ 300.72(a)) and (b)) exclusion of lands or resources in or under U.S. waters. This was proposed because federal trusteeship derives primarily from authority to manage or protect affected resources regardless of where these resources are located.

Response to comments: 1. Territorial sea - definition. One commenter asked if Subparts D and G will be revised to reflect the new definition of "territorial sea" in the January 1989 Presidential Proclamation.

The term "territorial sea" is used in the NCP only in the definition of "contiguous zone." "Territorial sea" is not defined in the NCP but is defined in CERCLA section 101(30) as having the same meaning provided in CWA section 502. This section defines the term "territorial sea" as "the belt of the seas measured from the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters, and extending seaward a distance of three miles." On December 27, 1988, the President issued a Proclamation (No. 5928, 54 FR 777, January 9, 1989) extending the territorial sea of the United States to 12 nautical miles from the baselines of the United States determined in accordance with international law. However, the Presidential Proclamation provides that nothing therein "extends or otherwise alters existing federal or state law or any jurisdiction, rights, legal interests, or obligations derived therefrom...." Therefore, the CWA definition of territorial sea has not been revised by this proclamation. Accordingly, EPA believes that it is unnecessary to change the use of territorial sea in the NCP.

2. Trustees' authority. One commenter stated that trustee actions are authorized by CERCLA, but no specific responsibilities are delineated. The commenter stated that the main purpose of Subpart G is to indicate the responsibilities of trustees, not to be a "plan" or other listing of their activities. However, some commenter recognized the merit of including in Subpart G examples of the kinds of activities that OSC/RPMs and others could expect of trustees. The commenter thought that the purpose of the Subpart was not clearly understood in the preamble and should be clarified.

Another commenter asserted that proposed § 300.600(b) could be construed as limiting trustees' activities to enumerated activities, and should be clarified, since trustees have many additional authorities other than those enumerated in that section.

The purpose of Subpart G is not to be an exclusive listing of the responsibilities of natural resource trustees, but to better inform the public of natural resource trustee designations. Proposed § 300.615 outlines some responsibilities of all trustees in general and federal trustees in particular. However, those responsibilities listed are not exclusive. Proposed § 300.615(e) lists some actions which may be taken by any trustee. Those actions are described as including but not being limited to certain enumerated actions. Nowhere in the preamble to the proposed rule or in the proposed rule itself is the suggestion that the listed activities are the only activities which trustees may take. Trustees may act pursuant to any other authority they have besides the NCP. However, to clarify the issue, EPA has changed the final rule language in the introduction to § 300.615(c) to read "Upon notification or discovery of injury to, destruction of, loss of, or threat to natural resources, trustees may, pursuant to section 107(f) of CERCLA or section 311(f)(5) of the Clean Water Act, take the following or other actions as appropriate:". The addition of "take the following or other actions as appropriate" is intended to highlight that the enumerated actions are not the only actions a trustee might take under CERCLA or the Clean Water Act, but are only examples of actions a trustee might take. EPA has also revised the final rule language in the introduction to § 300.615(e) to clarify that the trustee is acting pursuant to the Clean Water Act and CERCLA. The clarification is intended to highlight that trustees may also act pursuant to whatever authority they have and that the examples of responsibilities listed stem only from CERCLA and the Clean Water Act. EPA has also revised the introduction to § 300.615(d) to specify that the trustees authority includes, but is not limited to the enumerated actions.

As to the comment concerning § 300.600(b), EPA believes that nothing in that proposed or final section limits the trustees' authority to act in the proper circumstances. The section does not enumerate all the activities which the trustees may undertake, it merely describes situations under which they may act pursuant to CERCLA and the Clean Water Act. Those situations are when "there is injury to, destruction of, loss of, or threat to natural resources as a result of a release of a hazardous substance or a discharge of oil." However, to clarify that the rule does not limit trustees to act under other authorities, EPA is changing the rule language in § 300.600(b) to read that trustees are authorized to act "pursuant to section 107(f) of CERCLA or section 311(f)(5) of the Clean Water Act" in the listed instances.

3. Authority of Secretary of Commerce. One commenter believed that proposed § 300.600(b)(1) implied that the Secretary of Commerce acts on behalf of other federal agencies with authorities to manage or protect natural resources in coastal or marine areas but has no management or protection authorities himself and suggested that the rule language be changed to reflect that the Secretary is a trustee in his own right.

Another commenter questioned whether the requirement in § 300.600(b)(1) that the Secretary of Commerce (through NOAA) obtain the concurrence of other federal agencies before it acts is lawful. The commenter noted that this is particularly important where a federal agency may be a PRP, and may have the incentive to diminish the actions of the Department of Commerce and therefore reduce its potential liability. The commenter urged that the "concurrence" requirement be dropped.

Certain natural resources (e.g, within coastal and marine areas) are indeed under the jurisdiction of the Department of Commerce. EPA has clarified final § 300.600(b)(1) to read "Secretary of Commerce. The Secretary of Commerce shall act as trustee for natural resources managed or protected by the Department of Commerce or by other federal agencies and that are found in or under waters navigable by deep draft vessels,... (remainder as proposed)."

Specific natural resources in areas under the trusteeship of DOC may also be managed or protected under statutes administered by other federal agencies. Therefore, it is appropriate that the Secretary of Commerce shall, whenever practicable, seek the concurrence of the other agency when there is overlapping jurisdiction. Such concurrence is not required by law, however, and therefore, EPA will revise § 300.600(b)(1) to eliminate the requirement of mandatory concurrence of another federal agency before the Secretary of Commerce takes an action with respect to an affected resource under the management or protection of that agency. Instead the revised rule provides that the Secretary of Commerce shall, whenever practicable, seek such concurrence.

Final rule: EPA is revising proposed § 300.600) as follows

1. EPA is revising the introduction to § 300.600(b) to make it clear that trustees are authorized to act "pursuant to section 107(f) of CERCLA or section 311(f)(5) of the Clean Water Act" given the listed circumstances. Trustees may also act pursuant to whatever other authority they may possess.

2. Section 300.600(b)(1) is being revised to clarify that some natural resources are managed or protected by the Secretary of Commerce. It is being further revised to eliminate the requirement of concurrence of another federal agency before the Secretary of Commerce acts with respect to an affected natural resource under the management or protection of the other federal agency. Concurrence of the other federal agency shall be sought whenever practicable, pursuant to the revised rule.

Name: Section 300.610. Indian tribes as trustees for natural resources under CERCLA.

Proposed rule: For purposes of a release or threatened release of a hazardous substance which causes the incurrence of response costs, the 1986 amendments to CERCLA provide that an Indian tribe may bring an action for injury to, destruction of, or loss of natural resources belonging to, managed by, controlled by, or appertaining to such tribe, or held in trust for the benefit of such tribe, or belonging to a member of such tribe if such resources are subject to a restriction on alienation. The proposed rule provided that the tribal chairmen (or heads of the governing bodies), or other person designated by tribal officials, are trustees for those natural resources. The proposed rule provided that the tribe, if it designated a person other than the chairman (or head of the tribal governing body), notify the President of the trustee designation. The tribal trustee would have similar responsibilities to state and federal trustees under the proposed rule.

Response to comments: 1. Notification - timeliness of notice. A commenter noted that tribal resources, either on or off-reservation, may be affected by off-reservation Superfund sites. The commenter suggested that the NCP should clearly state that tribal natural resources trustees must be notified when a tribe's resources are injured by an oil discharge or a release of hazardous substances because early and proper notice will help Indian tribes protect their limited resource base by assuring timely assessments and maximum protective efforts.

EPA realizes that tribal resources, like other natural resources, may be affected by off-reservation Superfund sites. Pursuant to § 300.615(b), trustees are responsible for designating to the Regional Response Teams (RRTs), for inclusion in the Regional Contingency Plan, appropriate contacts to receive notifications from the on-scene coordinators (OSC)s/remedial project managers (RPMs) of potential damages to natural resources. Therefore, under the final rule, if tribal trustees (or the Secretary of the Interior, as appropriate) have notified the RRT of an appropriate contact, they will likely receive the early notification they seek.

2. Trustee designation. A commenter wanted EPA to contact affected tribes to determine who will serve as tribal trustee for Superfund activities. The final rule provides that the tribal chairmen (or heads of the governing bodies) of Indian tribes, or a person designated by tribal officials to act on behalf of Indian tribes are natural resources trustees for certain categories of natural resources. For other categories of resources, the Secretary of the Interior continues to function as trustee.

Normally the tribal chairman (or head of the governing body of the tribe) will be the natural resource trustee. However, tribal officials may choose to designate another person as trustee. When those officials designate another person as trustee, the final rule provides that the tribal chairman or heads of the tribal governing bodies notify the President of the trustee designation. EPA in the past has contacted states to learn of state trustee designations and will contact federally recognized Indian tribes to learn of tribal trustee designations.

In contrast to CERCLA, under CWA section 311, Indian tribes are not trustees and thus may not bring actions for injury to natural resources pursuant to that Act. For purposes of the Clean Water Act and for certain circumstances under CERCLA, where the United States continues to act as trustee on behalf of an Indian tribe, the Secretary of Interior will function as trustee of those natural resources for which the Indian tribe would otherwise act as trustee. Therefore, § 300.610 is being revised to eliminate the reference to authority to act of an Indian tribe when there is a discharge of oil.

3. Tribal resources. A commenter thought that the proposed rule failed to recognize the scope of tribal resources, e.g., hunting, fishing, and water rights.

EPA's description of natural resources in proposed § 300.600 was not intended to be an exclusive list, but only to give some examples of natural resources. It would be impossible to list every type of natural resource. CERCLA section 101(16) defines "natural resources" as including land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to the federal government, a state, or local government, or an Indian tribe, or if such resources are subject to a trust restriction on alienation, to any member of an Indian tribe.

As to the commenter's specific concern about hunting, fishing, and water rights, EPA believes that those rights are not themselves natural resources. The game to be hunted, the fish to be caught, and the water to be used are the resources, not the rights to those resources. Therefore, no change to rule language is necessary.

4. Natural resource damage assessments. One commenter suggested that the language in the preamble to the proposed rule (at 53 FR 51460) stating that a natural resource damage assessment performed by an Indian tribe, when reviewed by federal or state natural resource trustees, will be allowed the rebuttable presumption, should be changed.[28] The commenter suggested that the language should be changed to reflect that damage assessments performed by Indian tribes jointly with federal or state natural resource trustees would qualify for the rebuttable presumption. The commenter noted that similar language is found in the preamble

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[28] Section 107(f)(2)(C) of CERCLA provides that any determination or assessment of damages for purposes of CERCLA or section 311 of the Clean Water Act has the force and effect of a rebuttable presumption on behalf of the trustee in any administrative or judicial proceeding under CERCLA or section 311 of the Clean Water Act if made by a federal or state trustee in accordance with the regulations promulgated under CERCLA section 301(c).

to the natural resource damage assessment regulations at 53 FR 5168 (February 22, 1988).

EPA agrees with the commenter. When federal and state trustees and Indian tribes work closely together on assessments, such assessments may qualify for a rebuttable presumption.

Final rule: Proposed § 300.610 is revised as follows:

1. The second sentence is revised to read "When the tribal chairman or head of the tribal governing body designates another person as trustee, the tribal chairman or head of the tribal governing body shall notify the President of such designation."

2. The last sentence is revised to read: "Such officials are authorized to act when there is injury to, destruction of, loss of, or threat to natural resources as a result of a release of a hazardous substance."

Name: Section 300.615. Responsibilities of trustees.

Proposed rule: The proposed rule reorganized and substantively changed § 300.74 of the 1985 NCP. It sought to provide better information on the actions trustees may take to carry out their responsibilities. The proposed rule required cooperation and coordination when there are multiple trustees because of coexisting or contiguous natural resources or concurrent jurisdiction. It also described the responsibilities of all trustees in general, and of federal trustees in particular. Finally, in accord with the amendment of CERCLA, the proposed rule deleted the option of pursuing claims against the Fund for natural resources damages assessment and restoration of natural resources.

Response to comments: 1. Coordination -- a. Multiple trustees. One commenter suggested that the final rule should discuss "lead trustee" designation and exactly what responsibilities and authority the lead trustee has for the coordination of assessment activities by multiple trustees. Another commenter asked if three party agreements among the appropriate federal agency, the Indian tribe, and the state will be available in promoting cooperation.

EPA believes that it is important that only one person (i.e., the lead agency OSC or RPM) manage activities at the site of a release or potential release. When there are multiple trustees, EPA recommends that a lead authorized official be designated to coordinate all aspects of the natural resource damage assessment, investigation, and planning, including federal trustees' participation in negotiations with PRPs as provided under CERCLA section 122(j)(1). This coordination is designed to ensure efficient response actions and avoid duplication of efforts.

An "authorized official" is a federal or state official to whom is delegated the authority to act on behalf of the federal or state agency designated as trustee, or an official designated by an Indian tribe, to perform a natural resource damage assessment. See the Department of the Interior natural resource damage assessment rules at 43 CFR 11.14(d). A "lead authorized official" is a federal or state official authorized to act on behalf of all federal or state agencies, or an official designated by multiple tribes when there are multiple tribes, affected because of coexisting or contiguous natural resources or concurrent jurisdiction. 43 CFR 11.14(w). The DOI damage assessment rules encourage the cooperation and coordination of assessments that involve multiple trustees because of coexisting or contiguous natural resources or concurrent jurisdiction. The DOI regulations also contain examples of a lead authorized official's responsibilities in a damage assessment. He acts as coordinator and contact regarding all aspects of the assessments and acts as final arbitrator of disputes if consensus among the trustees cannot be reached regarding the development, implementation, or any other aspect of the Assessment Plan. The lead authorized official is designated by mutual agreement of all the natural resource trustees. Pursuant to the damage assessment regulations (at 43 CFR 11.32(a)(1)(ii)(A)-(D)), if consensus cannot be reached on a lead authorized official: (1) when the natural resources being assessed are located on lands or waters subject to the administrative jurisdiction of a federal agency, a designated official of the federal agency shall act as the lead official; (2) when the natural resources being assessed are located on lands or waters of an Indian tribe, an official designated by the Indian tribe shall act as the lead official; (3) for all other natural resources for which a state may assert trusteeship, a designated official of the state agency shall act as lead official.

The final rule suggests that where there are multiple trustees, because of coexisting or contiguous natural resources or concurrent jurisdictions, they should coordinate and cooperate in carrying out their responsibilities as trustees. EPA has substituted the words "should coordinate and cooperate" for the words "shall coordinate and cooperate" in final § 300.615(a). EPA has made this change because one trustee cannot compel another trustee to coordinate and cooperate in carrying out trust responsibilities, no matter how desirable that coordination and cooperation might be. However, EPA wishes to encourage such coordination.

Three party agreements are not excluded by the NCP. Therefore, coordination and cooperation may include three party agreements if necessary to facilitate the responsibilities of the trustees.

b. **Investigations**. One commenter suggested that biological assessment groups or technical assistance groups formed in various EPA regions provide a model for coordination that could be valuable nationwide, and the preamble might include mention of these as mechanisms to implement CERCLA section 104(b)(2).

Regional planning and coordination of preparedness and response actions is accomplished through the Regional Response Team (RRT). Such coordination may include biological assessment groups or other technical groups. Several EPA regional offices already include biological and technical assistance groups. Typically the groups are comprised of representatives from the Department of the Interior, U.S. Fish and Wildlife Service, the Department of Commerce (NOAA), and state departments of environmental conservation under the direction of an EPA chairman.

c. **Mandatory coordination**. One commenter suggested that language in proposed §§ 300.615(c), 300.410(g), and 300.430(b)(7) should be changed to delete the words "as appropriate" referring to coordination of trustees' efforts. This language should be strengthened to be consistent with CERCLA section 104(b)(2). Such coordination would minimize duplicative efforts and costs in natural resource damage assessments and RI/FSs, and would lead to more settlements under section 122(j).

Section 104(b)(2) of CERCLA provides that the "(P)resident shall ... seek to coordinate the assessments, investigations, and planning under this section with such federal and state trustees." EPA agrees that in most places in the final rule that the term "as appropriate" is not necessary. The term is not in section 104(b)(2) and is not needed to implement that section. EPA will eliminate the term "as appropriate" from §§ 300.410(g) and 300.430(b)(7), as the commenter requested, as well as in §§ 300.135(j) and 300.305(d). However, EPA will retain the term "as appropriate" in § 300.615(c). That section discusses the types of actions which a trustee may take under CERCLA. The trustee may have already taken the action or the action may not be necessary or desirable. Therefore, it is necessary to retain the term "as appropriate" in that section.

EPA has also revised § 300.315(c) to require the OSC to make available to the trustee information and documentation that can assist the trustee in determination of actual or potential natural resource injury from oil discharges. EPA has added the following sentence to the end of § 300.315(c): "The OSC shall make available to the trustees of the affected natural resources information and documentation that can assist the trustee in the determination of actual or potential natural resource injuries." EPA has revised § 300.315(c) to facilitate coordination between the OSC and the trustee, and to make the provision on oil discharges consistent with the provision on release of hazardous substances (see § 300.160(a)(3)).

As an editorial change, EPA is also adding the words "the trustee" in § 300.160(a)(3), so that it reads: "The lead agency shall make available to the trustees of affected natural resources information and documentation that can assist the trustees in the determination of actual or potential natural resource injuries." The addition of the words "the trustees" does not substantively change the meaning of the section, but emphasizes that the trustees make the determination of injury to natural resources.

2. Notification -- a. Criteria. A commenter suggested that the section on trustees should also provide criteria for notifying them.

CERCLA section 104(b)(2) and final NCP § 300.615(c) provide criteria for notification of trustees. The statute requires the President to promptly notify appropriate federal and state natural resource trustees of potential damages to natural resources resulting from releases under investigation pursuant to section 104(b). Pursuant to § 300.135(c) of the final rule, the OSC/RPM shall collect pertinent facts about the release, including the potential impact on natural resources. This information is in turn used to comply with §§ 300.135(j) and (k).

b. Not dependent on OSC/RPM. One commenter noted that natural resource trustee notification should not be dependent upon a decision by the OSC/RPM as to whether resources are affected by the release. The federal and state trustee agencies should be notified of the release; trustee agencies have both the expertise to determine the likelihood of injury to their resources and the responsibility for making the determination. The commenter suggested that this issue should be clarified in the preamble to the final rule by incorporating the following language: "The OSC or lead agency is responsible for ensuring that state and federal trustees are notified promptly of natural resources that may be exposed to, may be at risk from, or may be injured by discharges or releases."

EPA agrees that natural resource trustee notification should not be dependent upon a decision by the OSC/RPM as to whether resources are affected by the release. EPA also agrees that the lead trustee should make the determination of whether resources under its jurisdiction are affected. The final rule is unchanged in this regard because EPA believes that the final rule §§ 300.135(j) and (k) adequately address the commenter's concern.

c. Duty to notify mandatory. One commenter argued that, "as appropriate" or other phrases qualifying either the responsibility to notify, or the timing of notification, incorrectly lead OSCs and RPMs to view trustee notification as discretionary. The commenter suggested that language in the preamble briefly explain the intent or limitations of "as appropriate" or similar qualifying phrases, such as is done for those same phrases in the preamble of Subpart J on dispersants to make it clear that the intent of the NCP provision is that trustees be notified.

EPA agrees that the OSC/RPM has the mandatory duty to notify the trustee of discharges or releases that are injuring or may injure natural resources under a trustee's jurisdiction. Final § 300.135(j) codifies this requirement. The phrase "as appropriate" has been deleted from the second sentence of § 300.135(j). EPA also inadvertently omitted necessary language and included unnecessary language in the second sentence in proposed § 300.135(j). Therefore, EPA has revised that sentence to read: "The OSC or RPM shall seek to coordinate all response activities with natural resource trustees." The words "seek to" coordinate were added to track the language of section 104(b)(2). The words "...should consult with the natural resources trustee in determining such effects and..." were deleted from the second sentence because those words may have implied that the OSC had a role in determining whether there was injury or potential injury to natural resources, when in fact that is a sole determination of the trustee.

3. Damage assessments -- a. Qualifications of assessor. One commenter suggested that pursuant to § 300.615(c)(4), EPA should identify the qualifications that must be demonstrated for an individual to assess damages following 43 CFR Part 11.

The qualifications that must demonstrated for an individual to assess damages are determined by the trustee. The Department of Interior regulations specify how to conduct a damage assessment in order to qualify for the rebuttable presumption, but the qualifications of the person conducting that assessment is a question for each trustee to determine according to the needs of the trustee for the injured resources in question.

b. Negotiations. One commenter suggested that the following language, which is similar to DOI's natural resource damage assessment rules, be included in § 300.615: "State and federal trustees are not required to conduct a natural resource damage assessment to effectively participate in settlement negotiations. State and federal trustees need not conduct a natural resource damage assessment in order to agree to a covenant not to sue for natural resource damages."

The preamble to the DOI regulations (at 53 FR 5169, February 22, 1988) concerning natural resource damage assessments contains language noting that it is not necessary to conduct a damage assessment in order to effectively participate in settlement negotiations. EPA agrees with the DOI position and further believes that such an assessment is not a prerequisite to a covenant not to sue. Therefore, since the preamble to the DOI regulations provides the requested change already, no change to the NCP rule language is necessary.

c. Duty to perform. A commenter felt that the statements in the Subpart that the federal trustees "will" or "may" act pursuant to CERCLA section 107 and Clean Water Act (CWA) section 311(f)(5) attempt to water down the direct statutory command in those provisions that the trustees "shall" assess damages and carry out other trusteeship obligations. Another commenter suggested that the language in §§ 300.600(a) and 300.615(c) that is discretionary or unclear should be changed to state that the trustees "shall" carry out their duties established in CERCLA section 107(f) and CWA section 311(f)(5).

Section 107(f)(2)(A) confers authority on federal trustees to "act on behalf of the public as trustees for natural resources under this Act and under section 311" of the Clean Water Act and to "assess damages" for federal natural resource injury, destruction or loss for purposes of CERCLA and section 311 of the Clean Water Act. Neither CERCLA nor the Clean Water Act require trustees to perform any other function. Other actions which the trustees may perform pursuant to CERCLA and the Clean Water Act are discretionary, to be performed as necessary on a case specific basis.

The language in CERCLA section 107(f) and section 311(f)(5) of the Clean Water Act providing that the trustee "shall" act as trustee or "shall" assess damages does not require action by the trustee. Such language merely means that the trustee or his delegee are the only persons authorized to act as trustees or to assess damages. Performance of the functions of a trustee is discretionary under CERCLA and the Clean Water Act, based on case-specific circumstances. Therefore, final § 300.615(c)(3) provides that trustees "may, pursuant to section 107(f) of CERCLA or section 311(f)(5) of the Clean Water Act, take the following or other actions as appropriate", including carrying out damage assessments. And as noted earlier, a trustee may choose to act under other authority in addition to sections 107 and 311.

d. Coordination. A commenter urged EPA to insert additional language that encourages the lead agency to coordinate cleanup levels with natural resource damage assessments to the greatest extent possible.

EPA has already done much of what the commenter asks in § 300.430(b)(7)(proposed as § 300.430(b)(6)). Pursuant to that section the lead agency shall, if natural resources are or may be injured by the release, ensure that state and federal trustees are promptly notified in order that the trustees may initiate appropriate actions, including those identified in Subpart G of this Part. The subsection further requires the lead agency to seek to coordinate necessary assessments, evaluations, investigations, and planning with state and federal trustees. As to coordination of cleanup levels, EPA believes that the decision as to whether selected cleanup levels satisfy natural resource trustee concerns is a decision for the trustee to make.

4. Funding. A commenter suggested that EPA, consistent with legal obligations, should construe sections 111(b)(2)(B) and 517(c) of SARA to allow funding of natural resource damage assessments. The commenter urged EPA to seek amendment of section 517, if it is not possible to provide funding under current law. The commenter also noted that many states cannot carry out this responsibility without financial support from the Fund.

Section 517(c) of SARA prohibits expenditures from the Fund to pay trustees' claims for natural resources damage assessment and restoration of natural resources. The SARA conference report states, "(T)he conference agreement follows the House bill in deleting natural resource damage and assessment claims as a Superfund expenditure purpose." H.R. 99-962, 99th Congress, 2d Session, at 321 (October 3, 1986).

As to the commenter's request that EPA seek amendment of SARA to permit funding of natural resource damage assessments, EPA does not take positions on proposed amendments to statutes in rulemaking proceedings.

5. Federal trustees - covenant not to sue. A commenter asserted that while the preamble to the proposed rule mentions that the OSC/RPMs "shall coordinate the federal trustees' participation in negotiations with PRPs as provided under section 122(j)(1)" (53 FR 51461), the proposed rule does not reflect the language in section 122(j)(1). The commenter suggested that a new provision be included in § 300.615 to provide for: (1) notification to trustees by OSC/RPMs of negotiations with PRPS, and (2) covenants not to sue for damages to natural resources under the trusteeship of a federal trustee. The commenter asserted that the proposed NCP does not cover section 122 settlement provisions, but that consideration should be given to including the requirement in section 122(j) regarding federal natural resource trustee notification of proposed settlements with PRPs. The commenter added that early decisions as to the nature and amount of involvement must be made on the basis of available information, and that late notification and involvement may interfere with the ability to pursue natural resource trust authorities under CERCLA.

CERCLA section 122(j)(1) provides that "(W)here a release or threatened release of any hazardous substance that is the subject of negotiations under this section may have resulted in damages to natural resources under the trusteeship of the United States, the

President shall notify the federal natural resource trustee of the negotiations and shall encourage the participation of such trustee in the negotiations." The final rule (§ 300.615(d)(2)) already provides for trustee participation in negotiations between the United States and PRPs to obtain PRP-financed or PRP-conducted assessments and restorations for injured resources or protection for threatened resources. The final rule is consistent with statutory requirements in CERCLA section 122(j).

The authority of the federal trustees contained in proposed and final NCP § 300.615(d)(2) to negotiate with a PRP already includes discretionary authority to agree to a covenant not to sue for natural resource damages. However, to clarify that authority EPA will revise § 300.615(d)(2) to read that federal trustees have authority to agree to covenants not to sue, as appropriate. CERCLA section 122(j)(2) provides for such discretionary covenants if the PRP agrees to undertake appropriate actions necessary to protect and restore the natural resources damaged by the release or threatened release of hazardous substances.

6. States. A commenter suggested that the lead agency should have the responsibility for notifying state trustees of negotiations with PRPs, and encouraging state trustees to participate in settlement negotiations. The commenter suggested that § 300.615(c) should be revised to acknowledge that state trustees may participate in negotiations as well.

Section 300.520 of the NCP implements CERCLA section 121(f)(1)(F). Section 300.520(a) of the NCP already requires EPA to notify states of response action negotiations to be conducted by EPA with PRPs during each fiscal year. After notification, the state then has the responsibility to notify its trustees of such negotiations and to encourage their participation. Pursuant to § 300.520(b), the state, in turn, must notify EPA of such negotiations in which it intends to participate. Finally, pursuant to § 300.520(c), the state may be a party to such settlements. Given the foregoing provisions, EPA believes the recommended rule change is not necessary.

7. Damages. A commenter suggested that the word "damage" should be changed to "injury" when referring to "damage" to natural resources. While the relevant statutes and regulations use the terms "damages" and "injury" in different contexts, EPA uses the terms as follows for purposes of the NCP. "Damages" means the amount of money sought by the natural resource trustees as compensation for injury to, destruction of, or loss of natural resources, as set forth in section 107(a) or 111(b) of CERCLA. Pursuant to CERCLA section 107(a), damages also include the reasonable costs of assessing injury, destruction or loss of natural resources. "Injury" means a measurable adverse change, either long- or short-term, in the chemical or physical quality or the viability of a natural resource resulting either directly or

indirectly from exposure to a discharge of oil or the release of a hazardous substance. "Injury" encompasses injury, destruction, or loss of natural resources.

Final rule: Proposed §§ 300.615, 300.135(j), 300.160(a)(3), 300.305(d), 300.315(c), 300.410(g) and 300.430(b)(7) are revised as follows:

1. Section 300.615(a) has been revised to read "Where there are multiple trustees ..., they should coordinate and cooperate in carrying out these responsibilities."

2. In final § 300.615(b), the word "damages" has been changed to "injuries."

3. The introduction to § 300.615(c) has been changed to read as follows: "Upon notification ... trustees may ... pursuant to section 107(f) of CERCLA or section 311(f)(5) of the Clean Water Act take the following or other actions as appropriate:..."

4. The introduction to § 300.615(d) is revised to read: "The authority of federal trustees includes, but is not limited to the following actions:..."

5. Section 300.615(d)(2) has been revised to read: "Participate in negotiations ... threatened resources and to agree to covenants not to sue, where appropriate."

6. The introduction to § 300.615(e) has been revised to read: "Actions which may be taken by any trustee pursuant to section 107(f) of CERCLA or section 311(f)(5) of the Clean Water Act include, but are not limited to, any of the following: * * *"

7. Sections 300.135(j), 300.305(d), 300.410(g) and 300.430(b)(7) are revised to delete the phrase "as appropriate" and to state that "the OSC or RPM shall seek to coordinate all response activities with the natural resource trustees."

8. A new sentence is added to the end of § 300.315(c) on OSCs making information available to trustees.

9. The word "trustees" is added to § 300.160(a)(3).

SUBPART H -- PARTICIPATION BY OTHER PERSONS

The focus of this subpart is on those authorities of CERCLA that allow persons other than governments to respond to releases and to recover those response costs. Although this subpart is new, it revises and consolidates provisions from current NCP § 300.25 on Nongovernment Participation and § 300.71 on Other Party Responses into one place in the NCP. Subpart H also incorporates the new authorities from CERCLA, as amended, which address participation by other persons. The following discusses comments received on the proposed Subpart H and EPA's responses.

Name: Section 300.700(c). Consistent with the NCP.

Proposed rule: The proposed section revised and consolidated provisions from the 1985 NCP (§§ 300.25 and 300.71). The proposed section provided that any person may undertake a response action to reduce or eliminate a release of a hazardous substance. It also set out a list of those NCP provisions for which compliance would be required in order for a response action by "other persons" (i.e., persons who are not the federal government, a state, or an Indian tribe) to be considered "consistent with the NCP" for purposes of cost recovery actions under CERCLA section 107.

Response to comments: 1. Substantial compliance. EPA received diverse comments on its proposal to set out requirements that must be met by private parties in order for their actions to be "consistent with the NCP" for the purposes of cost recovery under CERCLA section 107. Some commenters approved of the list of requirements, noting that such a list affords parties some certainty as to what type of response actions will qualify for cost recovery under section 107; indeed, commenters suggested that they would not undertake cost recovery actions if they did not have clear guidance on what constitutes "consistency with the NCP."

On the other hand, an even greater number of commenters objected to EPA's proposal to define "consistency with the NCP" as a long list of largely procedural requirements, and urged EPA not to address the issue. A large number of commenters expressed the concern that defendants in private cost recovery litigation will seize on EPA's list as the definitive criteria for evaluating consistency with the NCP, and search for even minor discrepancies between a private party's actions and the criteria in an effort to block a cost recovery action. The effect will be to discourage private party cleanups. They request that EPA leave the question of "consistency with the NCP" to case-by-case adjudication in the federal courts. However, assuming the NCP does address this issue, they suggested that the rule should be clear that all of the listed elements of NCP consistency need not necessarily be met in a given case, and that substantial compliance with a given element is sufficient.

Several other commenters argued that EPA's criteria do not belong in the NCP as binding rules. A more appropriate forum is a non-binding guidance document, which can be applied to the facts of a particular action. Another commenter suggested that "consistency with the NCP" does not require the replication of the entire governmental cleanup process. Activities that contribute to an effective response action should qualify for reimbursement, even if they do not follow precisely each of the requirements listed in Subpart H or do not result in a complete cleanup.

In response, EPA is sympathetic to the perspectives expressed in the comments. EPA believes that it is important to encourage private parties to perform voluntary cleanups of sites, and to remove unnecessary obstacles to their ability to recover their costs from the parties that are liable for the contamination. At the same time, EPA believes it is important to establish a standard against which to measure cleanups that qualify for cost recovery under CERCLA, so that only CERCLA-quality cleanups are encouraged. EPA has attempted to accomplish both of these somewhat divergent goals.

EPA has continued the tradition of identifying the universe of requirements which are potentially relevant to private party actions (this would not include requirements that apply to intergovernmental consultation, the waiver of applicable requirements of other laws, and other provisions that are not appropriate for consideration by private parties).[29] However, EPA agrees with commenters that this list should not be construed as a fixed list of requirements that must be met in order for a party to qualify for cost recovery under CERCLA section 107(a)(4)(B). Thus, in the final rule (§ 300.700(c)(3)), strict compliance with that list of NCP provisions is not required in order to be "consistent with the NCP"; the list is provided in § 300.700(c)(5)-(7) as guidance to private parties on those requirements that may be pertinent to a particular site.

Instead, in evaluating whether or not a private party should be entitled to cost recovery under CERCLA section 107(a)(4)(B),

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[29] There are a number of NCP requirements that do not make sense for private parties, such as the requirements for State assurances (§ 300.510), or other provisions related to use of the Fund; similarly, there are self-imposed restrictions on governmental action that are not relevant to private actions, such as the requirement that a site be listed on the NPL before Fund-financed remedial action may be taken (§ 300.425(b)(1)).

EPA believes that "consistency with the NCP" should be measured by whether the private party cleanup has, when evaluated as a whole, achieved "substantial compliance" with potentially applicable requirements, and resulted in a CERCLA-quality cleanup. (CERCLA section 107(a)(4)(B) requires that the private party also show that the costs incurred were "necessary" cleanup costs.)

EPA believes that this formulation achieves two critical goals. First, it responds to commenters' concerns that rigid adherence to a detailed set of procedures should not be required in order to recover costs under CERCLA for private party cleanups. In addition, the approach taken today protects EPA's interest in ensuring that the benefit of a right of action under CERCLA section 107(a)(4)(B) should only be available for environmentally sound cleanups consistent with CERCLA requirements; in essence, the more lenient "substantial compliance" test should not be an invitation to perform low quality cleanups.

In order to a achieve a "CERCLA-quality cleanup," the action must satisfy the three basic remedy selection requirements of CERCLA section 121(b)(1) -- i.e., the remedial action must be "protective of human health and the environment," utilize "permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable," and be "cost-effective" -- attain applicable and relevant and appropriate requirements (ARARs)(CERCLA section 121(d)(4)), and provide for meaningful public participation (section 117). EPA believes that these statutory requirements are necessary to the achievement of a CERCLA-quality cleanup. (Although "public participation is not an explicit requirement in section 121 on remedy selection, EPA believes that it is integral to ensuring the proper completion part of any CERCLA cleanup action, as discussed below.) These requirements are not new additions from the proposed rule. Under the proposal, private parties were required to strictly comply with the detailed provisions of the NCP, including provisions codifying these statutory mandates (see final rule §§ 300.430(f)(1)(ii)(A) (protectiveness), (B) (ARARs), (D) (cost-effectiveness), (E) (permanence/treatment), and § 300.430(f)(3) (public participation)). EPA has simply issued a substantial compliance test while at the same time identifying several requirements that must be met in order to achieve substantial compliance.

EPA's decision to require only "substantial" compliance with potentially applicable requirements is based, in large part, on the recognition that providing a list of rigid requirements may serve to defeat cost recovery for meritorious cleanup actions based on a mere technical failure by the private party that has taken the response action. For example, EPA does not believe that the failure of a private party to provide a public hearing should serve to defeat a cost recovery action if the public was afforded an ample opportunity for comment. A substantial compliance test is appropriate as well in light of the difficulty of judging which potentially relevant NCP provisions must be met in any given case. For example, in most cases, a full range of alternative remedial options should be analyzed in detail as part of the feasibility study ("FS"), yet in appropriate cases, a "focused" FS -- under which fewer alternative options would be studied -- may be performed, consistent with the NCP (see § 300.430(e)(1)). EPA also recognizes that private parties generally will have limited experience in performing cleanups under the NCP, and thus may be unfamiliar with the detailed practices and procedures in this rather long and complex rule; an omission based on lack of experience with the Superfund program should not be grounds for defeating an otherwise valid cost recovery action, assuming the omission does not affect the quality of the cleanup.[30]

The decision to define a substantial compliance standard for private party cost recovery actions under CERCLA section 107(a)(4)(B) is within EPA's discretion. CERCLA section 107(a)(4)(B) provides that private persons may recover only those costs "incurred ... consistent with the NCP," and section 105(c) provides that the President shall promulgate and revise the NCP; thus, the statute directs the President to establish requirements for private cost recovery actions. In exercising that authority, EPA could have taken several different approaches in the NCP: establish identical requirements for private and governmental actions; establish a subset of NCP provisions with which private party cleanups must comply; or alternatively, set a general standard of compliance (e.g., "substantial compliance") with certain requirements for private party cleanups. In response to comments, EPA has today elected to pursue the third option.

EPA attempted to identify those NCP provisions with which compliance would not be necessary to meet the "substantial compliance" test, but concluded that a hard line cannot be drawn on these questions, given the considerable variability in types of response actions, potential ARARs, communities, etc. EPA found that what may be a significant deviation from procedures under one set of circumstances may be less serious in another (for example, some types of contaminants may be susceptible to only a limited number of remedial technologies, resulting in a more limited analysis of alternatives, and some communities may express no interest in a site, resulting in fewer public meetings). Thus, this determination is best left to the courts for a case-by-case determination. A private party can, of course, eliminate any risk or uncertainty by meeting the full set of requirements identified by EPA as potentially relevant to private actions (see §§ 300.700(c)(5)-(7)).

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[30] EPA does not believe that this substantial compliance standard will lead to low quality cleanups, especially in light of the express requirement for a "CERCLA-quality cleanup." However, it should be noted that even where a site has been cleaned up "consistent with the NCP," EPA has the authority under CERCLA to take appropriate action at the site should future releases be discovered or future conditions so warrant. See CERCLA sections 104(a)(1), 105(e), 121(c) and 122(f).

2. Not inconsistent with the NCP. One commenter asked why § 300.700(c) retains the language "not inconsistent with the NCP" when EPA attempted to revise this language elsewhere. Other commenters opposed EPA's proposal to delete the requirement in the current NCP (§ 300.71(a)(2)) that government response actions must comply with the same list of NCP provisions as private parties in order to be "not inconsistent with the NCP." They argued that private party "consistency" requirements should be streamlined and apply to both private parties and governmental entities. Another commenter suggested that a section in the NCP on the meaning of the phrase "not inconsistent with the NCP," would offer significant clarification on what constitutes CERCLA responses and lead to the most effective use of limited federal funds at all sites. Several commenters claimed that EPA applies a double standard by specifying steps a private party must take but not those that a governmental body must take.

In response, CERCLA section 107(a)(4) specifies a different burden of proof for actions brought by the federal government, states, or Indian tribes than for actions brought by private parties. Governmental response costs may be recovered from responsible parties unless they are shown to have been incurred "not consistent with the NCP." CERCLA section 107(a)(4)(A). By contrast, private parties may only recover other "necessary" costs incurred "consistent with the NCP." The final rule reflects this statutory distinction.

As to the commenters' request that EPA further define when costs are "not inconsistent with the NCP," several points are important to note. First, the CERCLA statute itself confirms that the President should not be held to a standard of strict adherence to all provisions of the NCP. Section 121(a) states:

> "The President shall select appropriate remedial actions determined to be necessary to be carried out under section 104 or secured under section 106 which are in accordance with this section and, to the extent practicable, the national contingency plan, and which provide for cost-effective response...." [Emphasis added.]

The legislative history confirms that this section has special meaning in the context of the government's right to recover costs "not inconsistent with the NCP." As Senator Chafee stated in the debate over the 1986 SARA Amendments,

> "The legislation states that remedial actions selected by the President shall, to the extent practicable, comply with the National Contingency Plan [NCP]. This language is intended to assure that alleged failures to comply with the NCP shall not be available as a defense to any liability in an enforcement proceeding brought under section 106 or 107."

132 Cong.Rec. S14925 (daily ed., Oct. 3, 1986).[31]

Consistent with this language, EPA does not believe that immaterial or insubstantial deviations from the detailed set of NCP provisions should serve to defeat a cost recovery action, whether federal or private (although it may influence the amount of costs allowed). At the same time, EPA believes that given the variability of circumstances at Superfund sites, it is impossible to define all cases (or to establish a fixed rule) for which non-compliance would be material. Thus, whether or not governmental costs can be shown to be "not inconsistent with the NCP" should be judged by a review of the cleanup action as a whole, not based on a simple review of the cleanup against the list of NCP provisions. EPA believes that the application of these principles is properly reserved to the courts for resolution on a case-by-case basis.

The concept that de minimis and harmless deviations from specific NCP provisions should not defeat a cost recovery action is consistent with long-standing judicial principles of harmless error and materiality. It is also consistent with the tenor and intent of the CERCLA statute, that parties who are liable for the contamination should be held responsible for remediating it; where a governmental or private party undertakes the cleanup (in the face of a lack of action by the responsible party), it would be inequitable to allow the responsible party to use minor procedural discrepancies to defeat reimbursement for an environmentally sound cleanup.

3. Role of the courts. Several commenters asserted that the criteria proposed by EPA attempted to limit the discretion of federal courts in determining what constitutes substantial compliance with the NCP for making CERCLA cost recovery awards. They argue that EPA should not by regulation attempt to establish matters that may be in dispute entirely between private parties.

In response, section 105 of CERCLA provides EPA with considerable discretion in establishing its plan for responding to releases of hazardous substances, pollutants and contaminants.

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[31] The statement by Sen. Chafee goes on to note that "[t]he language is not intended to provide any independent authority to EPA or other agencies to fail to apply, to overlook, ignore or waive any standard, requirement, criteria or limitation established under the law." Id.

There is no requirement that EPA promulgate a rule that would contain identical standards for governmental and private party response actions, and indeed, as discussed above, that would not make sense in areas such as intergovernmental coordination and Fund balancing. EPA has also noted that due to the variability of site circumstances, some provisions may or may not be applicable in specific cases, and the failure to comply with one or more provisions may or may not be material. Thus, this rule defines actions as "consistent with the NCP" for the purposes of section 107(a)(4)(B), when the private party cleanup, evaluated as a whole, is found to have achieved "substantial compliance" with specified requirements and resulted in a CERCLA-quality cleanup; although a provision-by-provision comparison is not required, EPA has provided a list of those NCP sections that are potentially relevant to private persons. Thus, the final rule provides a standard against which to measure "consistency with the NCP," but does not eliminate the very important role of the courts in deciding, on a case-specific basis, what costs should be awarded to the party that has undertaken the cleanup.

As to the comment that EPA should not issue regulations on this matter, EPA disagrees that the interpretation of section 107(a)(4)(B) is a matter "entirely between private parties." First, the government has a strong interest in ensuring that cleanup actions that derive a benefit from CERCLA section 107(a)(4)(B) -- a statute under the charge of EPA -- are performed in an environmentally sound manner; thus, it is appropriate to provide a standard or measure of consistency with the NCP. EPA also believes that it is an important public policy to encourage private parties to voluntarily cleanup sites, and to remove unnecessary obstacles to their recovery of costs. Further, as noted above, CERCLA directs the President to promulgate and revise NCP requirements (section 105(c)), and then directs that those requirements should be used as the standard for private cost recovery (section 107(a)(4)); thus, Congress contemplated that EPA would issue standards to be used for cost recovery actions.

4. Retroactivity. Some commenters expressed the concern that PRPs may attempt to impose the new definition of "consistency with the NCP" on private cleanups that are already complete or underway. They assert that it should be made clear that the rule does not apply to private response actions initiated prior to the effective date of the revised NCP.

In response, EPA does not believe that it is appropriate to grandfather cleanups that are already "underway." Such a position would result in an exemption from this rule for actions that were initiated prior to the effective date, but which may continue for years (such as long-term ground-water remediation actions). Further, EPA does not believe that this issue will pose a serious problem to private parties for several reasons. First, the rule's requirement of "substantial compliance" with potentially applicable NCP requirements affords private parties some latitude in meeting the full set of revised NCP provisions. Second, private parties have been on notice for over a year that EPA intended to require compliance with the principal mandates of CERCLA -- those required for a "CERCLA-quality cleanup," as discussed above -- as a condition for being "consistent with the NCP." (See CERCLA section 105(b), directing EPA to incorporate the SARA requirements into the NCP; and the December 21, 1988 proposed NCP (at § 300.700(c)(3)(i)(H), 53 FR at 51513), proposing to list among the requirements for "consistency with the NCP" compliance with §§ 300.430(f)(3)(ii) (protectiveness and ARAR compliance), (f)(3)(iii) (permanence and treatment, and cost-effectiveness), and (f)(2) (public participation) (53 FR at 51507)).

Finally, the requirement for "consistency with the NCP" has been a precondition to cost recovery under CERCLA section 107 since the passage of the statute in 1980, and pursuant to the 1985 NCP, consistency with the NCP was measured by compliance with a detailed list of NCP requirements; thus, on-going actions should already comply with the 1985 provisions.

5. Public participation. One commenter asserted that EPA is misapplying statutory requirements by stating that private parties must engage in the full panoply of public participation procedures under CERCLA, even though the statute imposes these requirements only on EPA. Because no governmental actions are involved, no public process should be required as a precondition of cost recovery.

EPA disagrees. Public participation is an important component of a CERCLA-quality cleanup, and of consistency with the NCP. The public -- both PRPs and concerned citizens -- have a strong interest in participating in cleanup decisions that may affect them, and their involvement helps to ensure that these cleanups -- which are performed without governmental supervision -- are carried out in an environmentally sound manner. Thus, EPA has decided that providing public participation opportunities should be a condition for cost recovery under CERCLA. The rule does not, however, require rigid adherence to a set of procedural requirements. For instance, § 300.700(c)(6) (proposed NCP § 300.700(c)(3)(ii)(B)) provides that state or local public participation procedures may be followed, consistent with the NCP, if they provide a substantially equivalent opportunity for public involvement.

6. CERCLA section 103 reporting requirement. Another commenter suggested that EPA has misapplied the statutory notification requirements in the proposed NCP. According to the commenter, the proposal implies that any violation of CERCLA's requirement to report certain hazardous substance releases to the National Response Center (NRC) under CERCLA section 103(a) is

grounds for holding a subsequent response action inconsistent with the NCP. The commenter suggests that there is no substantive connection between the reporting requirement and the adequacy of a response action.

In response, the NCP requires any person in charge of a facility or vessel to notify the NRC of any releases of hazardous substances into the environment over a defined reportable quantity (see § 300.405(b)). EPA believes that this NCP requirement is integral to EPA's decision as to whether a government-funded or -supervised cleanup is necessary at a site. Thus, the failure to report such releases to the NRC is an appropriate factor to consider in evaluating whether a private party has acted consistent with the NCP.

7. Specific comments on consistency with the NCP. One commenter suggested that rather than cross-referencing overly broad sections of the NCP to describe compliance for cost recovery purposes, § 300.700(c)(3) should repeat or paraphrase each requirement that must be met.

As explained above, the rule attempts to aid private parties by identifying those provisions that may be relevant to voluntary cleanup actions. Repeating each such provision in § 300.700 would significantly complicate and lengthen the section unnecessarily, as the reader is clearly referred to the appropriate sections by citation. Further, EPA has made clear that rigid adherence to every potentially relevant provision is not required in order to be consistent with the NCP.

Another commenter noted that for several of the cross-referenced sections, determining which subsection is "pertinent to the particular response chosen for the particular facility" is very difficult.

In response, two general points require clarification. First, as a threshold matter, it appears that the commenter may be confused by the roles and responsibilities of "other persons" and the "lead agency." In a private party response action, the private party may perform most of the functions of a lead agency, except of course, waivers of applicable laws, permit waivers, and functions related to use of the Fund (EPA has identified those sections of the NCP that are potentially relevant to private party cleanups in § 300.700(c)(5)-(7)); there is no support agency in a private party cleanup action.

It is also important to repeat that rigid compliance with every potentially applicable NCP provision is not required to establish that a private cleanup action was "consistent with the NCP"; rather, the substantial compliance test outline above should be applied. With these two caveats, EPA has attempted to respond to the commenters' concerns regarding the potential applicability of particular sections of the NCP to private party cleanup actions.

The following are specific examples raised by the commenter where more specificity on what is required for recovery under section 107 is requested. EPA's response is included in each section.

a. Natural resource trustees. Must private parties coordinate with trustees of affected natural resources to determine the injury to these resources (§ 300.160(a)(3)) or to initiate appropriate actions (§ 300.410(g))?

In response, § 300.160(a)(3) requires the communication of information to natural resources trustees that may assist in the determination of actual or potential injury to the resources. Section 300.410(g) requires notification to the trustees when natural resources have been or are likely to be damaged, and requires the OSC or lead agency to seek to coordinate, as appropriate, with trustees for the performance of natural resource damage assessments, evaluations, investigations, and planning. Both sections are within the universe of requirements that may potentially apply to private party cleanup actions, and compliance with them may be important to ensuring a cleanup consistent with the NCP.

b. Technology. What precisely must private parties do to "encourage the involvement and sharing of technology by industry and other experts" (§ 300.400(c)(7))?

In response, § 300.400(c)(7) requires the lead agency, to the extent practicable, to encourage the involvement and sharing of technology by industry and other experts. EPA believes that other persons should seek the most appropriate technology and expertise for a response action.

c. ARARs and TBCs. Must private parties coordinate with the lead and support agencies to identify ARARs, and ensure that the two agencies notify each other of the ARARs they identified (§§ 300.400(g)(1) and (5))? What about TBCs (§ 300.400(g)(3))?

In response, §§ 300.400(g)(1) and (2) require the identification of applicable requirements, and relevant and appropriate requirements, respectively, and specify the criteria upon which to determine whether requirements are ARARs. Section 300.400(g)(5) requires the lead agency and support agencies to notify each other as to identified ARARs. Although these sections provide no specific consultation process for coordination of ARARs where there is no support agency, EPA encourages private parties to notify the agency responsible for oversight, if any, of the ARARs they have identified, in order to ensure that such requirements have been properly identified, and in order to ensure that a CERCLA-quality cleanup will be achieved (which includes the attainment of ARARs). Section 300.400(g)(3) simply states that lead and support agencies may, as appropriate, identify TBCs for a particular release and defines what TBCs are; here again, however, it may be advisable for private parties to seek the advice of the relevant agency as to which guidance documents should usefully be followed.

d. Engineering evaluation/cost analysis (EE/CA). If PA and SI reports are required for removals, why isn't an EE/CA also required (§ 300.415(b)(4))?

In response, the preamble to the proposed rule correctly excluded § 300.415(b)(5) -- relating to time and dollar limitations on removal actions -- from the list of sections that may be relevant to cleanups by other persons (53 FR at 51461). However, due to a typographical error, proposed rule § 300.700(c)(3)(i)(F) mistakenly excluded § 300.415(b)(4) -- relating to EE/CA's -- from the list of potentially relevant provisions. This error has been corrected in today's final § 300.700(c)(5)(vi).

e. ARARs - exigencies. How does the private party determine that the "exigencies of the situation" prevent the attainment of ARARs during removals (§ 300.415(j)(renumbered as § 300.415(i) in the final rule)?

In response, one of the requirements for cost recovery under CERCLA section 107(a)(4)(B), as set out in today's rule, is to attain a CERCLA-quality cleanup, which includes the requirement to attain ARARs -- both "applicable requirements" and "relevant and appropriate requirements." However, the NCP allows governmental agencies to attain or waive ARARs; in the private context, this possibility is more limited.

Governmental actions are taken under the authority of CERCLA, and therefore may invoke ARARs waivers under CERCLA section 121(d)(4). However, private party actions are not carried out under CERCLA authority but simply seek to take advantage of a right of cost recovery provided under CERCLA section 107 for certain types of actions; therefore, waivers of applicable requirements of federal or state law are unavailable in such private party cleanups. Similarly, the concept of complying with applicable requirements to the extent practicable for removal actions, applies only to actions taken or secured by the President (or his authorized representative). (In emergency situations where an immediate response action is required by a private party, noncompliance with an applicable requirement should not necessarily bar a claim for cost recovery.)

Private parties shall also comply with relevant and appropriate requirements. However, relevant and appropriate requirements do not legally apply of their own force to the private party actions (see § 300.5); thus, where one of the waivers in § 300.430(f)(1)(ii)(C) can be justified, it may be appropriate for a private party to waive a relevant and appropriate requirement. Similarly, when undertaking removal actions, a private party need only comply with relevant and appropriate requirements "to the extent practicable"; best professional judgment should be used in determining which relevant and appropriate requirements can practicably be met. Private parties also have some discretion to decide whether requirements are relevant and appropriate under the circumstances of the release, using the criteria set out in § 300.400(g)(2).

8. Recovery pursuant to other federal or state law. A commenter suggested that it should be made clear in §§ 300.700(c)(1) and (2) that those sections only apply to section 107(a) cost recovery actions and not to cost recovery actions taken pursuant to other federal or state law. The commenter believes that the requirement of consistency with the NCP for tens of thousands of non-NPL, non-CERCLA sites and spills for entitlement to cost recovery from responsible parties will discourage many cleanups normally performed under state statutes.

Another commenter believed that the NCP should recognize that cleanups done pursuant to non-CERCLA federal or state authority can be consistent with the NCP. This could be accomplished in one or more of the following ways. First, as part of its deferral policies, the NCP could state that cleanups qualifying for deferral are presumptively consistent with the NCP. The commenter stated that deferral of a NPL site to a state government should mean that the remedial action is considered to be in conformance with the NCP for the purpose of cost recovery. This approach would provide an incentive for prompt settlement. Second, § 300.700(c) could be revised to clarify that the list of NCP provisions with which a private cost recovery plaintiff must comply includes the substantially similar provisions of other authorities.

In response to the first comment, it is important to note that CERCLA section 107(a)(4)(B) does not require private parties to conduct cleanups consistent with the NCP; rather, it establishes a right of action under CERCLA for cost recovery in those cases where non-governmental parties have incurred necessary response costs consistent with the NCP. The result of not meeting this standard is that cost recovery under CERCLA may not be available; however, this does not mean that the action may not proceed, or that cost recovery may not be available under other federal or state law. Of course, even if a party takes a cleanup action under an authority other than CERCLA (e.g., RCRA corrective action), it may have a right of cost recovery under CERCLA section 107 if the action was a necessary response to a release of hazardous substances, and was performed consistent with the NCP.

On the deferral issue, the decision by EPA to defer a site from listing on the NPL for attention by another authority does not represent a determination that the response action to be taken will presumptively be consistent with the NCP. Indeed, EPA policy on deferral contemplates situations in which sites that have been deferred may still be listed on the NPL for attention under CERCLA, e.g., if owner/operator proves to be unwilling or unable to accomplish the cleanup. See, e.g., 53 FR 30005 (August 9, 1988). Each response action taken under another authority (e.g., RCRA) for which cost recovery is sought under section 107(a)(4)(B) must be justified on a case-by-case basis. As to specific comments on a policy of deferral to states, EPA has not made a decision as to whether, or under what circumstances, current deferral policies should be expanded to include deferral to states. EPA will consider all comments concerning deferral to a state authority or a non-CERCLA federal authority separately from the NCP.

9. Compliance with state standards/non-ARARs. A commenter asked, if a state seeks to require additional remediation, in excess of that required by EPA (for example, in a section 106 order or a section 122 consent decree), will such remediation be deemed to be excessive, inconsistent with the NCP, and not available for cost recovery under CERCLA section 107(a)(4)(A)?

In response, there may be situations in which additional remediation, while not "required" by the NCP, is "not inconsistent with the NCP"; at the same time, there may be cases where such additional remediation is inconsistent with the NCP. Such a determination must be made on a case-by-case basis, considering the facts of each case. The issue is too complex to be resolved by a simple statement in the final NCP rule.

10. Consistency with the NCP -- section 106/section 122 consent decrees. A commenter alleged that there is a double standard for site cleanups' consistency with the NCP, one for section 106 orders or section 122 consent decrees, another for other persons to be consistent with the NCP, with extensive technical and public participation requirements, many of which may not be a part of a potential section 106 order or section 122 consent decree. Another commenter charged that the proposal would create a non-rebuttable presumption that severely disadvantages defendants in private cost recovery actions.

In response, the final rule requires only "substantial compliance" with those potentially applicable NCP requirements, and a CERCLA-quality cleanup, in order for a private party action to be consistent with the NCP for cost recovery purposes; thus, the commenters' concerns (regarding non-rebuttable presumptions and a stricter standard for private party actions) have largely been addressed. As to section 106/122 orders or decrees, those documents implement remedies that have been selected in accordance with CERCLA and the NCP, and they contain the cleanup standards necessary for consistency with the NCP. EPA believes that defendants will have acted "consistent with the NCP" when they comply with a section 106 order or a section 122 consent decree.

11. Preauthorization. Section 300.700(d) provides a process under which EPA may, in its discretion, preauthorize Fund reimbursement for necessary response costs incurred by private parties as a result of carrying out the NCP. In order to qualify for preauthorization, the requesting party must establish, inter alia, that the action will be "consistent with the NCP"; this showing should be site-specific, based on an evaluation of the list of potentially applicable NCP provisions. Further, where a PRP seeks preauthorization, the rule provides that the action must be carried out pursuant to an order or settlement agreement with EPA. In both cases, EPA's interpretation of "consistency with the NCP" for the purpose of CERCLA section 107(a)(4)(B) would not override any site-specific requirement as part of the preauthorization or enforcement processes.

12. Waivers. As discussed above, certain provisions of the NCP (and of the statute) are not appropriate to private party response actions for which cost recovery may be sought under CERCLA. These include the permit waiver in CERCLA section 121(e)(1) (§ 300.400(e)) and the waiver of applicable federal or state requirements in CERCLA section 121(d)(4) (NCP § 300.430(f)(1)(ii)(B)). The statute makes clear that those waiver provisions are reserved for actions carried out by the President (or his delegate) or by a state or tribe under CERCLA section 104(d)(1), or by a party pursuant to an order or decree under CERCLA section 106 or 122. The final rule has been revised to make clear that private parties that qualify for cost recovery under CERCLA section 107 are not entitled to the permit waiver of CERCLA section 121(e)(1), and may not invoke the waivers in CERCLA section 121(d)(4) for applicable requirements, although "relevant and appropriate" requirements may be waived upon a proper showing under § 300.430(f)(1)(ii)(C) of this rule.

Final rule: The proposed rule has been revised as follows:

1. In order to more accurately reflect the language of CERCLA sections 107(a)(4)(A) and (B), §§ 300.700(c)(1) and (2) are revised to read:

> (1) Responsible parties shall be liable for all response costs incurred by the United States government or a state or an Indian tribe not inconsistent with the NCP.

(2) Responsible parties shall be liable for necessary costs of response actions to releases of hazardous substances incurred by any other person consistent with the NCP.

2. Consistent with the response to comment discussed above, the list of NCP provisions that are potentially applicable to private parties has been placed in new §§ 300.700(c)(5)-(7), and consistency with the NCP has been defined in revised § 300.700(c)(3) and new § 300.700(c)(4). Revised §§ 300.700(c)(3) through (8) are as follows:

(3) For the purpose of cost recovery under section 107(a)(4)(B) of CERCLA:

(i) A private party response action will be considered "consistent with the NCP" if the action, when evaluated as a whole, is in substantial compliance with the applicable requirements in subsections (5) and (6), and results in a CERCLA-quality cleanup;

(ii) Any response action carried out in compliance with the terms of an order issued by EPA pursuant to section 106 of CERCLA, or a consent decree entered into pursuant to section 122 of CERCLA, will be considered "consistent with the NCP."

(4) Actions under § 300.700(c)(1) will not be considered "inconsistent with the NCP," and actions under § 300.700(c)(2) will not be considered not "consistent with the NCP," based on immaterial or insubstantial deviations from the provisions of 40 CFR Part 300.

(5) The following provisions of this Part are potentially applicable to private party response actions:

(i) Section 300.150 (on worker health and safety);

(ii) Section 300.160 (on documentation and cost recovery);

(iii) Section 300.400(c)(1), (4), (5), and (7) (on determining the need for a Fund-financed action), (e) (on permit requirements) except that the permit waiver does not apply to private party response actions; and (g) (on identification of ARARs) except that applicable requirements of federal or state law may not be waived by a private party;

(iv) Section 300.405(b), (c), and (d) (on reports of releases to the NRC);

(v) Section 300.410 (on removal site evaluation) except paragraphs (e)(5) and (6);

(vi) Section 300.415 (on removal actions) except paragraphs (a)(2), (b)(2)(vii), (b)(5), and (f); and including § 300.415(i) with regard to meeting ARARs where practicable, except that private party removal actions must always comply with the requirements of applicable law;

(viii) Section 300.420 (on remedial site evaluation);

(ix) Section 300.430 (on RI/FS and selection of remedy) except paragraph (f)(1)(ii)(C)(6) and that applicable requirements of federal or State law may not be waived by a private party;

(I) Section 300.435 (on RD/RA and operation and maintenance).

(6) Private parties undertaking response actions should provide an opportunity for public comment concerning the selection of the response action based on the provisions set out below, or based on substantially equivalent state and local requirements. The following provisions of this Part regarding public participation are potentially applicable to private party response actions, with the exception of administrative record and information repository requirements stated therein:

(i) Section 300.155 (on public information and community relations);

(ii) Section 300.415(m)(on community relations during removal actions);

(iii) Section 300.430(c)(on community relations during RI/FS) except paragraph (5);

(iv) Section 300.430(f)(2), (3), and (6)(on community relations during selection of remedy); and

(v) Section 300.435(c) (on community relations during RD/RA and operation and maintenance).

(7) When selecting the appropriate remedial action, the methods of remedying releases listed in Appendix D of this Part may also be appropriate to a private party response action.

(8) Except for actions taken pursuant to CERCLA sections 104 or 106 or response actions for which reimbursement from the Fund will be sought, any action to be taken by the lead agency listed in paragraphs (c)(5) through (c)(7) may be taken by the person carrying out the response action.

Name: **Section 300.700(c). Actions under CERCLA section 107(a).**

Proposed rule: The proposed rule summarized the various authorities under CERCLA that are available to recover the costs of response actions, including a section 107(a) cost recovery action. Proposed § 300.700(g) also provided that implementation of response measures by PRPs or by any other person does not release those parties from liability under section 107(a), except as provided in a settlement under section 106 or 122 of CERCLA or a federal court judgment.

Response to comments: 1. **Settlement policies -- a. Mixed funding**. One commenter suggested that EPA should become more forthcoming in providing mixed funding in support of settlement agreements. Greater use of this authority would encourage settlement of cases by cooperative parties, even where they do not make up a majority of the PRPs.

EPA supports mixed funding arrangements and is sympathetic to the commenter's concern that greater use be made of mixed funding to accelerate settlements. EPA plans increased use of mixed funding in appropriate cases.

b. **De minimis parties**. A commenter suggested that EPA should revise its existing de minimis buyout provisions to allow earlier resolution of claims against de minimis parties. EPA supports settlements with de minimis parties and plans increased use of settlements with de minimis parties in appropriate cases.

2. **Notice**. One commenter urged that EPA should specifically note in the NCP that it is EPA's position that a private party need not provide notice to the government before instituting a cost recovery action because a notice requirement serves no significant policy goals and can only obstruct private cleanups.

EPA agrees that a private party need not provide notice to the government before instituting a cost recovery action against another private party, but such party must provide concurrent notice to the government. Pursuant to CERCLA section 113(l), whenever any action is brought under CERCLA in a federal court by a plaintiff other than the United States, the plaintiff must provide a copy of the complaint to the Attorney General of the United States and to the Administrator of EPA.

3. **Ripeness**. According to one commenter, EPA should urge (in the NCP) that plaintiffs should not be required to have incurred all of the cleanup costs at a site before being entitled to bring a section 107 cost recovery action. The commenter acknowledged that while it is logical to require completion of cleanup actions in order to protect public health, requiring

completion as a prior condition to the bringing of a cost recovery action could have an adverse effect on parties' willingness to undertake costly cleanups of hazardous waste releases. A party may be reluctant to assume all of the costs without some judicial assurance on the issue of the ultimate liability for cost recovery purposes. Few companies, the commenter added, have the resources necessary to completely fund a large, unilateral cleanup, even if they expect to be reimbursed.

In response, EPA agrees with the commenter that a cost recovery action need not await the incurring of all response costs before it may be brought. This interpretation is consistent with CERCLA section 113(g)(2), which allows courts to enter "declaratory judgments" on liability that are binding on subsequent cost recovery actions under CERCLA section 107. Further, as the commenter noted, requiring a party to incur all costs before bringing a cost recovery action may discourage and delay cleanups, contrary to the intent of Congress that sites be cleaned up expeditiously.

4. Recoverable costs. One commenter stated that the NCP should expressly provide that the only limitation on the nature of recoverable private response costs deemed appropriate by EPA is that they be consistent with the NCP. Because the plaintiff in a cost recovery action must bear the initial out-of-pocket expenses itself, there is sufficient private incentive to conduct cost-effective response actions.

EPA disagrees with the commenter that the only limitation on appropriate recovery be that the costs have been incurred consistent with the NCP. Pursuant to CERCLA section 107(a)(4)(B), a person may be liable for "any other necessary costs of response incurred by any other person consistent with the national contingency plan." Therefore, plaintiffs must prove that costs are both "necessary" and "incurred consistent with the NCP."

5. Standard of liability. One commenter stated that the proposed NCP fails to specify the standard of liability that ought to be applied by the courts in private actions, although courts have agreed that strict liability is appropriate for government cleanup actions under Superfund. The commenter alleged that the Act does not suggest that differing standards of liability are appropriate under the statute. The commenter argued that as long as strict liability is applied in government-initiated cases, it should be applied as well to private cost recovery claims.

EPA has long taken the position that the liability of potentially responsible parties is strict, joint, and several, unless they can clearly demonstrate that the harm at the site is divisible. This standard of liability applies no matter whether the plaintiff is governmental or private.

6. Consistency with NCP - political subdivisions. One commenter asserted that EPA's inclusion of political subdivisions of states as parties whose actions are presumed to be consistent with the NCP is contrary to the statute. The plain words of the statute indicate that only federal and state governments and Indian tribes fall within section 107(a)(4)(A). EPA appears to be assuming that local governments are subsumed within the definition of states, and thus are subject to the same cost recovery presumption as states. However, there are numerous provisions in CERCLA in which states and local governments are both separately referred to -- an illogical result if Congress did not truly intend for the latter to be considered legally different entities from the former. Furthermore, these provisions always referred to these two entities as states or local governments (or political subdivisions of states), thereby reinforcing the presumption that Congress intentionally differentiated between these two levels of government. Therefore, the commenter urged, EPA should revise proposed § 300.700(c)(1) by deleting the text "including political subdivisions thereof ...." Such a change will retain the presumption of consistency with the NCP only for those parties for whom Congress intended such a preference.

EPA is revising the rule to be consistent with the language in section 107(a)(4)(A). The issue of whether political subdivisions can be treated like states for purposes of cost recovery actions under section 107 is a matter to be left to the courts.

7. Not inconsistent with NCP - governmental response actions. One commenter asserted that EPA should not delete language that defines what NCP provisions constitute actions to be not inconsistent with the NCP (see 53 FR 51462). The commenter suggested EPA should be clear in delineating the "not inconsistent with" standard for all to see and use on a case-by-case basis consistent with the statute.

EPA believes that it is not necessary to define what actions are "not inconsistent with the NCP," and would leave those determinations to a case-by-case decision-making. The "not inconsistent" standard applies only to removal or remedial actions conducted by an agency of the federal government, a state, or an Indian tribe. Governmental bodies, particularly states, may have programs similar to the NCP, that achieve the same objectives, but are not congruent with the NCP in every respect. EPA believes that these governmental bodies, consistent with the statute, should have flexibility to implement response actions and bring cost recovery actions for those response actions as long as the response actions are not inconsistent with the NCP, even if achieved by different methods.

8. Treble damages. A commenter noted that CERCLA section 107(c)(3) currently contains a provision for the collection of punitive damages "in an amount of at least equal to, and not more than, three times" against individuals who "without sufficient cause" fail to carry out a CERCLA section 104 or 106 administrative order. The commenter asserted that this provision has not been used by EPA to recover damages from recalcitrant parties who do not respond and participate in the cleanup of wastes that they are responsible for at a given site. The commenter urged that recalcitrant parties should not be led to believe that the government will not seek to extract punitive damages, or they may choose to wait for government action at the expense of delaying a voluntary cleanup.

The commenter said that treble punitive damages are especially important where the identifiable incremental cost of a response action (assumed by a proactive company) related to recalcitrant waste volumes may be minimal. These damages, when compared to a minimal total response cost represent an incentive for early cooperation by the potential recalcitrant, and an incentive for EPA to acquire funds to apply to a site remediation project. The need for mixed funding Superfund financing requirements should also be reduced by recalcitrant participation.

The commenter added that EPA's use of treble damages in cost recovery actions will provide further incentive for prompt response actions before and after waste sites or other areas are listed on the NPL. Such action would help to limit the number of sites listed on the NPL and encourage independent action by both government (e.g., municipal) and private parties.

It has been and continues to be EPA's policy that seeking treble damages in cost recovery actions against recalcitrant parties who fail to comply with administrative orders under sections 104 or 106 is an important tool and EPA considers its use in appropriate cases.

Final rule: Proposed § 300.700(c)(1) is revised to delete the reference to political subdivisions.

Name: **Section 300.700(e). Recovery under CERCLA section 106(b).**

Proposed rule: The proposed section provided that any person may undertake a response action to reduce or eliminate a release of a hazardous substance, pollutant or contaminant. It also summarized the various authorities under CERCLA that are available to recover the costs of response actions. Those mechanisms include section 106(b) - wherein any person who as complied with a section 106(a) order may petition the Fund for the reimbursement of reasonable costs, plus interest.

Response to comments: 1. Petitions for reimbursement. One commenter noted a error in the rule language in § 300.700(e). The preamble and the rule language have conflicting dates. The preamble uses an October 17, 1986 date, while the rule language uses an October 10, 1986 date. Final § 300.700(e) has been revised to read "... after October 16, 1986 ...."

2. Effective date and waiver in section 106(b)(2). One commenter noted that proposed § 300.700(e) would provide that persons who have complied with an order "issued after October 17, 1986" may petition the Fund for reimbursement "unless the person has waived that right." The commenter stated that neither of the quoted limitations is in CERCLA, and both are inappropriate attempts to narrow the rights of PRPs to claim against the Fund. The commenter alleged that the reimbursement provision was effective as of October 17, 1986, and applied to "any order" issued under section 106(a). The commenter believed that as long as the recipient of the order petitions EPA for reimbursement within 60 days after completion of the required action, reimbursement is potentially available under the law. The commenter requested that EPA delete the two phrases quoted above.

EPA interpretation of section 106(b)(2) is that it applies only to orders issued after the date of enactment of SARA, i.e., on or after October 17, 1986. That interpretation has been upheld in court as a reasonable interpretation. (See Wagner Seed Co. v. Bush, 709 F.Supp. 249 (D.D.C. 1989).)

Pursuant to section 106(a), the President may issue orders unilaterally or on consent. Administrative orders issued on consent generally contain a waiver of a respondent's rights pursuant to section 106(b)(2), therefore the reference to "unless the person has waived that right."

Final rule: Proposed § 300.700(e) is revised to include the date of October 16, 1986.

SUBPART I -- ADMINISTRATIVE RECORD FOR SELECTION OF RESPONSE ACTION

Subpart I of the NCP is entirely new. It implements CERCLA requirements concerning the establishment of an administrative record for selection of a response action. Section 113(k)(1) of CERCLA requires the establishment of "an administrative record upon which the President shall base the selection of a response action." Thus, today's rule requires the establishment of an administrative record that contains documents that form the basis for the selection of a CERCLA response action. In addition, section 113(k)(2) requires the promulgation of regulations establishing procedures for the participation of interested persons in the development of the administrative record.

These regulations regarding the administrative record include procedures for public participation. Because one purpose of the administrative record is to facilitate public involvement, procedures for establishing and maintaining the record are closely related to the procedures governing public participation. General community relations provisions found in other parts of the proposed NCP are addressed elsewhere in this preamble.

The following sections discuss the major comments received on the proposed Subpart I and EPA's responses.

Name: General comments.

Proposed rule: Subpart I details how the administrative record is assembled, maintained and made available to the public.

Response to comments: Comments on the administrative record regulations included the suggestion that the preamble provide a general statement differentiating between the administrative record and the information repository.

EPA agrees that while Subpart I includes ample information on the requirements of the administrative record, a brief clarification would help to differentiate the record from the information repository.

The information repository includes a diverse group of documents that relate to a Superfund site and to the Superfund program in general, including documents on site activities, information about the site location, and background program and policy guides. EPA requires an information repository at all remedial action sites and any site where a removal action is likely to extend beyond 120 days. The purpose of the information repository is to allow open and convenient public access to documents explaining the actions taking place at a site.

The administrative record discussed in this subpart, by contrast, is the body of documents that forms the basis of the agency's selection of a particular response at a site, i.e., documents relevant to a response selection that the lead agency relies on, as well as relevant comments and information that the lead agency considers but may reject in the ultimate response selection decision. Thus, the record will include documents the lead and support agency generate, PRP and public comments, and technical and site-specific information. These documents occasionally overlap with those included in the information repository. The administrative record includes such information as site-specific data and comments, guidance documents and technical references used in the selection of the response action. The information repository may include guides to the Superfund process, background information, fact sheets, press releases, maps, and other information to aid public understanding of a site response, regardless of whether the information has bearing on the eventual response selection at that site.

One commenter felt that there was no mechanism for PRPs to participate in the development of the administrative record. In response, PRPs are given a chance to participate in the development of the administrative record throughout its compilation. EPA will make available information considered in selecting the response action to PRPs and others through the administrative record file. Interested persons may peruse the record file, submit information to be included in the administrative record file, or may comment on the its contents during the ensuing public comment period.

Name: Section 300.800(a). Establishment of an administrative record. Section 300.810(a). Contents of the administrative record.

Proposed rule: Section 113 (k)(1) of CERCLA states that the "President shall establish an administrative record upon which the President shall base the selection of a response action." EPA used similar language in § 300.800(a) of the proposed rule: "The lead agency shall establish an administrative record that contains the documents that form the basis for the selection of a response action." (Emphasis added.) Section 300.810(a) states that the "administrative record file for selection of a response action typically, but not in all cases, will contain the following types of documents...," followed by an enumeration of those documents.

Response to comments: EPA's choice of the phrase "form the basis" in § 300.800(a) drew many comments. The comments expressed concern that the lead agency would have the discretion to include in the administrative record only those documents that support EPA's selected remedy.

These comments appear to be based on a misunderstanding of what the phrase "forms the basis of" means as it was used in the proposed rule. The statute defines the administrative record as the "record upon which the President shall base the selection of a response action." EPA's intent in defining the record as the file that "contains the documents that form the basis for the selection of a response action" was simply to reflect the statutory language. For example, an administrative record will contain the public comments submitted on the proposed action, even if the lead agency rejects the comments, because the lead agency is required to consider these comments and respond to significant comments in making a final decision. Thus, these comments also "form the basis of" the final response selection decision. EPA intends that the regulatory language defining the administrative record file embody general principles of administrative law concerning what documents are included in an "administrative record" for an agency decision. As a result, contrary to the suggestion of the commenters, the proposed definition of the administrative record does not mean that the record will contain only those documents supporting the selected response action.

A commenter asked that the phrase "but not in all cases" be deleted from § 300.810(a), or specify the cases where documents are excluded from the administrative record. EPA believes it is better not to attempt to list excluded documents in the NCP since EPA cannot possibly anticipate all the types of documents that will be generated for a site or for future sites, and which of these documents should be excluded except as generally described in § 300.810(b). It should be noted, for example, that although a health assessment done by ATSDR would normally be included in the administrative record, it would not be if the assessment was generated by ATSDR after the response is selected.

Others commented that certain documents should always be included in the administrative record. EPA believes that only a small group of documents will always be generated for every type of CERCLA site, since each site is unique. Other documents may or may not be generated or relevant to the selection of a particular response action at a site. EPA understands that a definitive list of required documents would assist parties in trying to assess the completeness of the administrative record, but such a list would not be practical. Different sites require different documents.

A related group of comments asked that the administrative record always include certain documents, including, specifically, "verified sampling data," draft and "predecisional" documents, and technical studies. One comment stated that "invalidated" sampling data and drafts must be part of the administrative record in some situations. Verified sampling data, i.e.. data that has gone through the quality assurance and quality control process, will be included in the record when it has been used in the selection of a response action. "Invalidated" data, i.e., data which has been found to be incorrectly gathered, is not used by EPA in selecting the response action and should therefore not be included in the record. This should be distinguished from unvalidated data -- data that has not been through the quality control process -- which may in limited circumstances be considered by the agency in selecting the response action. It is EPA's policy to avoid using unvalidated data whenever possible. Nonetheless, there are times when the need for action and the lack of validated data requires the consideration of such data in selecting an emergency removal action. If such data is used, it will be included in the record.

In general, only final documents are included in the administrative record files. Draft documents are not part of the record for a decision because they generally are revised or superseded by subsequent drafts and thus are not the actual documents upon which the decision-maker relies. However, drafts (or portions of them) generally will be included in the administrative record for response selection if there is no final document generated at the time the response is selected and the draft is the document relied on. In addition, a draft which has been released to the public for the purpose of receiving comments is also part of the record, along with any comments received.

Similarly, predecisional and deliberative documents, such as staff notes or staff policy recommendations or options papers, do not generally belong in the administrative record because they merely reflect internal deliberations rather than final decisions or factual information upon which the response selection is based. However, pertinent factual information or documents stating final decisions on response selection issues for a site generally would be included in the record.

Technical studies are also part of the record, again, if considered by the lead agency in selecting the response action. The commenter seems to have misinterpreted EPA's intent by assuming that only factual portions of a technical study are part of the record. The entire study, or relevant part of the study, should be part of the record.

Another comment stated that the administrative record should include any studies on cost, cost-effectiveness, permanence, and treatment that underlie the record of decision. These studies are already part of the remedial investigation and feasibility study, which is always included in the record. Another party stated that sampling protocols should be in the administrative record. Sampling protocols are part of the RI/FS work plan, which is also part of the administrative record. And because sampling protocols, like chain of custody documents, are generally grouped together, EPA has provided in this rulemaking that such grouped or serial documents may be listed as a group in the index to the administrative record file.

A related comment requested that all documents generated by contractors should be included in the record. In response, any document that forms the basis of a response selection decision will be included in the administrative record. It is immaterial who develops the document -- it can be a contractor, the public (including a PRP), a state or EPA.

One commenter asked that ARAR disputes involving a disagreement over whether a requirement is substantive or administrative be documented in the record. Other comments stated that EPA must ensure that complete ARAR documentation and documentation of all remedial options, not just the selected remedy, be placed in the record. Where ARAR issues are relevant to response selection, lead and support agency-generated documents and public information submitted to the lead agency on this issue would be part of the record. The record will include documentation of each alternative remedy and ARAR studied during the RI/FS process, and the criteria used to select the preferred remedy during the remedy selection process.

EPA also received several comments stating that every document contributing to decision-making should be part of the administrative record. EPA cannot concur in this formulation of the administrative record since it is unclear what "contributing to" means and that phrase may be overly broad. For instance, the term "contributing to" could be interpreted to include all draft documents leading up to a final product. These draft documents do not generally form the basis of the response selection. However, because the administrative record includes documents which form the basis for the decision to select the response action, EPA believes that most "contributing" documents will be included.

One comment stated that the hazard ranking system (HRS) information should be included in the administrative record for selection of the response action. Specifically, they suggested that internal memoranda, daily notes, and the original HRS score should be made available. The National Priorities List (NPL) docket is a public docket, and already contains the relevant ranking information. The information generally relevant to the listing of a site on the NPL is preliminary and not necessarily relevant to the selection of the response action. If, however, there is information in the NPL docket that is relied on in selecting the response action, it will be included in the administrative record.

Another commenter stated that all materials developed and received during the remedy selection process should be made a part of the record, and stated that the NCP currently omits inclusion of transcripts. As noted above, certain documents simply will not be relevant to the selection of response actions. EPA will, as required by the statute, include in the record all those materials, including transcripts, that form the basis for the selection of a response action, whether or not the materials support the decision.

Several commenters asked that the lead agency be required to mail them individual copies of documents kept in the administrative record. These requests included copies of sampling data, a copy of any preliminary assessment petitions, potential remedies, the risk assessment, a list of ARARs, and notification of all future work to be done. Commenters also asked to be notified by mail when a lead agency begins sampling at a site and when a contractor is chosen for a response action. In addition, many asked for the opportunity to comment on the documents mentioned above. A related comment suggested that EPA maintain a mailing list for each site and mail copies of key documents in the record to every party on the list.

EPA believes that maintaining an administrative record file in two places, in addition to a more general information repository, with provisions for copying facilities reflects EPA's strong commitment to keeping the affected public, including PRPs, informed and providing the opportunity for public involvement in response decision-making. Requiring EPA to mail individual copies of documents available in the record file is beyond any statutory requirements, unnecessary due to the ready availability of the documents in the file, and a severe burden on Agency staff and resources. Most of the documents requested above will generally be available in the administrative record for public review and copying. Additionally, the lead agency should maintain a mailing list of interested persons to whom key site information and notice of site activities can be mailed as part of their community relations plan for a site.

One commenter asked that all PRP comments and comments by other interested parties be included in the record, regardless of their "significance." EPA will include all comments received during the comment period in the administrative record, regardless of their significance. When the lead agency considers comments submitted after the decision document has been signed, the "significance" of a comment has a bearing on whether it will be included in the administrative record, as specified in § 300.825(c). In addition, while EPA is under no legal obligation to place in the record or consider comments submitted prior to the comment period, EPA will generally, as a matter of policy, consider significant comments submitted prior to the comment period, place them into the record, and respond to them at an appropriate time. However, persons who wish to ensure that the comments they submitted prior to the comment period are included in the record must resubmit such comments during the comment period.

Final rule: Section 300.800(a) is promulgated as proposed.

Name: Section 300.800(b). **Administrative record for federal facilities.**

Proposed rule: Section 300.800(b) states that the lead agency for a federal facility, whether EPA, the U.S. Coast Guard, or any other federal agency, shall compile and maintain an administrative record for that facility. When federal agencies other than EPA are the lead at a federal facility site, they must furnish EPA with copies of the record index, in addition to other specified documents included in the record. The preamble to the proposed NCP discussion of § 300.800(b)(53 FR 51464) states that EPA will establish procedures for interested parties to participate in the administrative record development, and that EPA may furnish documents which the federal agency is required to place in the record.

Response to comments: One comment stated that EPA should be the custodian for administrative records for federal facilities, especially where the federal facility is a PRP, to avoid any conflict of interest in questions of liability or litigation. Another comment stated that the requirements in § 300.800(b) of the proposed rule would be burdensome to federal agencies in compiling and maintaining the record.

Executive Order 12580 grants federal agencies the authority to "establish the administrative record for selection of response actions for federal facilities under their jurisdiction, custody or control." To avoid the potential for conflicts of interest by federal agencies who are PRPs and in charge of compiling and maintaining the record, EPA retains control over the development of the record by specifying what goes into the record, by supplementing the record and by requiring an accounting of what is in the record through a report of the indexed contents. EPA believes that these requirements represent sufficient Agency oversight to avoid potential conflicts of interest at federal facilities while ensuring that federal lead agencies remain responsible for compiling and maintaining their own administrative record.

EPA is making a minor editorial change in 300.800(b)(1) to reflect that the federal agency compiles and maintains an administrative record for a facility, and not at a facility, since 300.800(a) already provides that the record will be located at or near that facility.

Final rule: EPA is promulgating the rule as proposed, except for the following minor editorial change in the first sentence of 300.800(b)(1): "If a federal agency other than EPA is the lead agency for a federal facility, the federal agency shall compile and maintain the administrative record for the selection of the response action for that facility in accordance with this subpart."

Name: Section 300.800(c). Administrative record for state-lead sites.

Proposed rule: Section 113(k) of CERCLA states that the President "shall establish an administrative record upon which the President shall base the selection of a response action." Section 300.800(c), entitled "Administrative record for state-lead sites," requires that states compile administrative records for state-lead sites in accordance with the NCP.

Response to comments: Several commenters believe that the new administrative record procedures place an onerous burden on the state, and request that state requirements such as Open Records Acts should be allowed as a substitute for compliance with Subpart I. Another commenter recommended that states be allowed to determine whether a complete administrative record is needed at or near the site when a site is state-lead. Where a response is taken under CERCLA at a state-lead site, EPA is ultimately responsible for the selection of a response action. Therefore, under Section 113(k), EPA must establish an administrative record for the CERCLA response action at the site, and must, at minimum, comply with Subpart I. There may be many different ways of compiling administrative records and involving the public in the development of the record. Subpart I states the minimum requirements for section 113(k). Lead agencies, including states, may provide additional public involvement opportunities at a site. In response to whether or not states should maintain a complete administrative record at or near the site, EPA believes that states must have such a record in order to meet CERCLA section 113(k) requirements.

EPA has included a minor editorial change in 300.800(c) to reflect that a state compiles and maintains an administrative record for rather than at a given site.

Final rule: EPA is promulgating § 300.800(c) as proposed, except for a minor editorial change in the first sentence as follows: "If a state is the lead agency for a site, the state shall compile and maintain the administrative record for the selection of the response action for that site in accordance with this subpart."

Name: **Sections 300.800(d) and 300.800(e). Applicability.**

Proposed rule: Section 300.800(d) states that the provisions of Subpart I apply to all remedial actions where the remedial investigation began after the promulgation of these rules, and for all removals where the action memorandum is signed after the promulgation of these rules. Section 300.800(d) also proposes that "(t)his subpart applies to all response actions taken under section 104 of CERCLA or sought, secured, or ordered administratively or judicially under section 106 of CERCLA." Section 300.800(e) states that the lead agency will apply Subpart I to all response actions not included in § 300.800(d) "to the extent practicable."

Response to comments: One commenter argued that the applicable provisions of Subpart I should be amended to require agencies to comply with the subpart for all sites where the remedy selection decision was made more than 90 days after proposal of the revised NCP for comment. Another comment stated that § 300.800(e) be revised to state that lead agencies must comply with Subpart I in any future actions they take, and that all lead agency actions must comply with Subpart I "to the maximum extent practicable."

In response, EPA will adhere as closely as possible to Subpart I for sites where the remedial investigation began before these regulations are promulgated. EPA will not, however, require that these sites comply with requirements which, because of the timing of the response action relative to the promulgation of these rules, cannot be adhered to. For example, under the final rule the administrative record file must be available at the beginning of the remedial investigation phase. If these regulations are promulgated when a site is in the middle of the remedial investigation process, and the administrative record is not yet available, the lead agency cannot at this point comply with these regulations. Additionally, EPA believes that adding language to proposed NCP § 300.800(e) to state that lead agencies will comply with provisions of Subpart I in any future action after promulgation of the new rule is unnecessary and redundant; compliance will be legally required, and applicability to all future response actions is implicit in the rule. Likewise, insertion of the word "maximum" before the phrase "extent practicable" is unnecessary since it would give additional emphasis but would not substantively change the requirement or the meaning of the rule.

One comment agreed with EPA's interpretation that Subpart I applies to all response actions "sought, secured or ordered administratively or judicially," but others disagreed. Several stated that the term "judicially" should be deleted from § 300.800(d) because they argue that response actions ordered judicially would receive de novo adjudication, instead of administrative record review. CERCLA section 113(j)(1) states:

"In any judicial action under this Act, judicial review of any issues concerning the adequacy of any response action taken or ordered by the President shall be limited to the administrative record." Commenters contend that this section does not apply to injunctive actions under CERCLA section 106 because these are not actions "taken or ordered by the President." To the contrary, the selection of a response action is a "response action taken... by the President." Accordingly, section 113(j)(1) requires that judicial review of the response action selected by the agency is "limited to the administrative record." Further, section 113(j)(2) stipulates that, "in any judicial action under this chapter" -- whether for injunctive relief, enforcement of an administrative order or recovery of response costs or damages -- a party objecting to "the President's decision in selecting the response action" must demonstrate, "on the administrative record, that the decision was arbitrary or capricious or otherwise not in accordance with law."

EPA received several comments objecting to EPA's determination that judicial review of an endangerment assessment be limited to the administrative record. They stated that as a matter of administrative and constitutional law, a finding of imminent and substantial endangerment is not an issue concerning "the adequacy of the response action," as stated in CERCLA section 113(j), and therefore must receive de novo review by a court. A second comment requested that EPA state in the regulation that review of EPA's expenditures in the implementation of a remedy is de novo.

An assessment of endangerment at a site is a factor highly relevant to the selection of a response action, and is in fact part of the remedial investigation (RI) process central to the decision to select a response action. Therefore, the determination of endangerment (which will generally be included in the decision document) will be included in the administrative record for selection of a response action and should be reviewed as part of that record. (EPA notes that the term "endangerment assessment" document has been superseded by the term "risk assessment" document, and while assessments of endangerment at a site are still conducted during the RI, it is the "risk assessment" document that becomes part of the record.) In response to the comment that Agency expenditures on a response action should receive de novo review, EPA notes that this issue was not raised in the proposed NCP, and is therefore not addressed in the final rule.

Final rule: EPA is promulgating the rule as proposed.

Name: Section 300.805. Location of the administrative record file.

Proposed rule: Section 113(k)(1) of CERCLA states that "the administrative record shall be available to the public at or near the facility at issue. The President also may place duplicates of the administrative record at any other location." Section 300.805 of the proposed NCP provides five exemptions for information which need not be placed at or near the facility at issue: sampling and testing data, guidance documents, publicly available technical literature, documents in the confidential portion of the file and emergency removal actions lasting less than 30 days.

Response to comments: One commenter supported limiting the amount of information which must be located at or near the site, but many commenters stated that every document contributing to decision-making, including confidential documents which are part of the record, should be located at or near the site and agency convenience is not a sufficient reason to exclude documents from the site. They asserted that such exclusions undermine active public involvement at the site and are contrary to statutory intent. Another comment stated that requiring the administrative record to be kept in two places, at a central location and at or near the site, runs counter to the statutory requirement of keeping a record only "at or near the facility at issue." One commenter asked that EPA acknowledge that Indian tribal headquarters may be a logical place to keep the administrative record when a Superfund site is located on or near an Indian reservation. A final comment requested that EPA endorse through regulatory language that administrative records can be kept on microfiche or other record management technologies, and have the equivalent legal validity to paper records.

Requiring sampling data and guidance documents to be placed at the site is both unnecessary and, in many cases, very costly. Administrative records are often kept at public libraries where space is limited and cannot accommodate voluminous sampling data for large, complex sites. Summaries of the data are included in the RI/FS, which is located at or near the site. In addition, requiring publicly available technical literature at the site will require copying copyrighted material, an additional expenditure of limited Superfund dollars. Moreover, Agency experience is that, as yet,relatively few people view the administrative record file at or near the site or request review of the sampling data or general guidance documents listed in the index to the site file.

However, EPA has revised the rule to specify that, if an individual wishes to review a document listed in the index but not available in the file located at or near the site, such document, if not confidential, will be provided for inclusion in the file upon request. The individual will not need to submit a Freedom of Information Request in order to have the information made available for review in the file near the site. EPA believes that provision of such documents in the file near the site upon request meets the requirement of CERCLA 113(k) that the record be "available" at or near the site. In addition, this rule does not bar lead agencies from deciding to place this information in the site file without waiting for a request. Lead agencies are encouraged to place as much of this information at or near the site as practical, and to automatically place information at sites where there is a high probability that the information will be in demand or the information is central to the response selection decision.

The confidential portion of the file need not be located at or near the site, and will not be available upon request either at the site or at the central location, since the information is not available for public review.

EPA believes that requiring that the record be located in two places is necessary to ensure both adequate public access to the record files and better lead-agency control over the record documents. The statutory requirement in CERCLA section 113(k)(1) states that the President may also place duplicates of the administrative record at any other location. This section clearly provides authority to maintain a second administrative record at a central location. Section 300.805 of the proposed NCP (53 FR 51515) reflects EPA's decision to make this statutory option a regulatory requirement. A centrally located record may offer easier access to interested parties located far from the response site.

EPA agrees with the commenter that housing the centrally located copy of the record at Indian tribal headquarters may be appropriate when a Superfund site is located at or near an Indian reservation. In the 1986 amendments to CERCLA, Indian tribes are accorded status equivalent to states, and can be designated lead agencies for response actions, in which case they would also be required to compile and maintain the administrative record at or near the site.

Finally, as EPA stated in the preamble to the proposed NCP, maintaining the administrative record on microfiche is already recognized as a legally valid and effective practice: "EPA may make the administrative record available to the public in microform. EPA may microform-copy documents that form the basis for the selection of a CERCLA response action in the regular course of business" (53 FR 51465). EPA agrees that this should be specified in the rule and has added § 300.805(c) accordingly, providing that the lead agency may make the record available in microform.

Final rule: Section 300.805 is modified as follows:

1. Section 300.805(b) is added to the rule as follows: "Where documents are placed in the central location but not in the file located at or near the site, such documents shall be added to the file located at or near the site upon request, except for documents included in paragraph (a)(4) of this section.

2. Section 300.805(c) is added to the rule as follows: "The lead agency may make the administrative record file available to the public in microform."

3. The section has been renumbered accordingly.

Name: Sections 300.810(a)-(d). Documents not included in the administrative record file.

Proposed rule: Section 300.810(b) discusses which documents may be excluded from the administrative record. Section (c) discusses privileged information that is not included in the administrative record. Section 300.810(d) discusses confidential information that is placed in the confidential portion of the administrative record.

Response to comments: One commenter argued that § 300.810 should specifically include an exemption for classified documents related to national security. While the NCP currently does not address the potential conflict between national security concerns and the requirement to establish a publicly-accessible administrative record, it is not clear that such an exemption could be adequately specified by rule or that an exemption would appropriately resolve this conflict. Section 121(j) provides a national security waiver by Presidential order of any requirements under CERCLA, which can be invoked in certain circumstances. Under this provision, protection of national security interests requires case-by-case review under section 121(j) and not a blanket exemption in the NCP. Nothing in the NCP limits the availability of this waiver.

Another comment received by EPA stated that the treatment of privileged and confidential documents in the records is unfair, because it denies access to documents that may be critical to the selection of a remedy. EPA has provided for a confidential portion of the administrative record where documents containing, for example, trade secrets of companies that have developed patented cleanup technologies being considered as a response selection alternative can be kept confidential. To maintain a fair balance between the need for confidentiality and the public's right of review of the record, the lead agency must summarize or redact a document containing confidential information to make available to the greatest extent possible critical, factual information relevant to the selection of a response action in the nonconfidential portion of the record.

A final comment proposed that an index to the privileged documents should be included in the nonconfidential portion of the administrative record. EPA agrees, believing that an index will let interested parties know in general terms what documents are included in the record without compromising the confidential nature of the information contained in those documents.

Finally, EPA is adding a sentence to § 300.810(a)(6) to clarify that the index can include a reference to a group of documents, if documents are customarily grouped. This will simplify EPA's task without compromising the integrity of the record.

Final rule: 1. EPA is promulgating §§ 300.810(b), (c) and (d) as proposed with a minor editorial change to clarify the first sentence of § 300.810(d).

2. The following language is added to § 300.810(a)(6) to provide for listing grouped documents in the administrative record file index: "If documents are customarily grouped together, as with sampling data chain of custody documents, they may be listed as a group in the index to the administrative record file."

Name: Section 300.815. Administrative record file for a remedial action.

Proposed rule: The term "administrative record file" is used throughout the proposed NCP. Section 300.815(a) proposes that the administrative record file be made available for public inspection at the beginning of the remedial investigation phase.

Response to comments: EPA received several comments objecting to the concept of an administrative record file. They objected because there is no statutory authority for establishing a file, and because they were concerned that the lead agency could edit the file, specifically by deleting public and PRP comments and information that do not support the response action ultimately chosen by EPA, and that these comments and information would not remain a part of the final administrative record.

The statute requires the President to establish an administrative record. Under Subpart I of the NCP, the administrative record file is the mechanism for compiling, and will contain, the administrative record required by section 113(k). One reason EPA adopted the concept of an administrative record file is that EPA felt that it may be confusing or misleading to refer to an ongoing compilation of documents as an "administrative record" until the compilation is complete. Until the response action has been selected, there is no complete administrative record for that decision. Thus, to avoid creating the impression that the record is complete at any time prior to the final selection decision, the set of documents is referred to as the administrative record file rather than the administrative record.

However, this does not mean, as the comments appear to suggest, that the lead agency may "edit" the administrative record file in a manner that removes comments and technical data simply because they are not supportive of the final selection decision. Any comments and technical information placed in the record file for a proposed response action and relevant to the selection of that response action, whether in support of, or in opposition to, the selected response action, become part of the administrative record for the final response selection decision. Such materials will remain in the administrative record file, and will become part of the final administrative record. However, EPA believes that as a matter of law documents that are erroneously placed in the administrative record file (e.g., documents that have no relevance to the response selection or that pertain to an entirely different site) would not necessarily become part of the final administrative record.

EPA received additional comments stating that the administrative record file should be available before the beginning of the remedial investigation phase. These comments suggested that the file be available when: a site is entered into the CERCLIS data base; when the HRS score is calculated; when proposed for inclusion on the NPL; after the preliminary assessment report; and after the remedial site investigation.

EPA believes that the point at which a site is entered into the CERCLIS data base is too early to put any information which would be relevant to a selection of a response action into a record file because at this point there has been no site evaluation and therefore little factual information about the site upon which to base a response decision. Interested parties can already find any information on a site that would be included at the point of the HRS scoring and placement on the NPL in the NPL docket, which is publicly available. The preliminary assessment and remedial investigation stages of a response are premature for making the administrative record available; at these points there is little information relevant to response selection on which to comment or to review. Once the RI/FS work plan is approved, and the RI/FS study begins -- including such activities as project scoping, data collection, risk assessment and analysis of alternatives -- there is a coherent body of site-specific information with relevance to the response selection upon which to comment. EPA believes that the beginning of the RI/FS phase is the point in the process when it makes sense to start a publicly available record of information relevant to the response selection.

One comment suggested that interested persons would have no chance to comment on the formation of the RI/FS work plan. They suggest that the record file should be available before the RI/FS work plan is approved, e.g., with a draft work plan or statement of work. EPA disagrees. Approved work plans are often amended. An interested person may comment on the scope or formation of the work plan, and such comments can be taken into account by the lead agency and incorporated into a final or amended work plan. Such comments must be considered if submitted during the comment period on the proposed action.

Final rule: EPA is promulgating § 300.815(a) as proposed.

Name: Section 300.815. Administrative record file for a remedial action. Section 300.820(a). Administrative record file for a removal action.

Proposed rule: Subpart I requires that the administrative record for a remedial action be available for public review when the remedial investigation begins. Thereafter, relevant documents are placed in the record as generated or received. The proposed regulations also require that the lead agency publish a newspaper notice announcing the availability of the record files, and a second notice announcing that the proposed plan has been issued. A public comment period of at least 30 days is required on the proposed plan. Section 300.820(a) outlines the steps for the availability of the record and public comment for a non-time critical removal action. EPA solicited comments on a proposal currently under consideration to require quarterly or semi-annual notification of record availability and the initiation of public comment in the FEDERAL REGISTER.

Response to comments: Some commenters suggested that the use of the FEDERAL REGISTER to announce the availability of the administrative record is too costly or of little or no benefit. Several commenters requested clarification on how and when the lead agency should respond to comments. Another stated that lead agencies should be encouraged -- though not required -- to respond to early comments before the formal comment period begins.

EPA chose not to require a notice of availability of the administrative record in the FEDERAL REGISTER in this rulemaking because it is still unclear whether the benefits of this additional notice outweigh its costs. EPA may decide in the future to require this additional notice if it determines that such notice would improve notification.

EPA agrees with commenters that clarification is needed as to when the lead agency should respond to comments. We also agree that the lead agency should be encouraged to respond to comments submitted before the public comment period. EPA generally will consider any timely comments containing significant information, even if they are not received during the formal comment period, and encourages other lead agencies to do so. EPA will strive to respond to comments it receives as early as possible, and to encourage other lead agencies to follow suit. However, any lead agency is required to consider and respond to only those comments submitted during a formal comment period. Any other comments are considered at the lead agency's discretion. EPA has revised the language of these sections to reflect the policy on consideration of public comments submitted prior to public comment periods.

One comment recommended that the regulations should provide how long the administrative record must be available, and suggested EPA coordinate efforts with the National Archives about retaining the record as a historical record. Another felt that materials were not always placed into the record in a timely manner, and that the record was not always available to the working public during evenings and weekends or accompanied by a copying machine. Similarly, one commenter felt that documents should be placed in the record when they are generated or in a prescribed time-frame of two weeks. Another asked that free copies of key documents be included in the record.

EPA believes that the length of time a record must be available at or near the site will be dependent on site-specific considerations such as ongoing activity, pending litigation and community interest. EPA also believes that difficulties sometimes encountered by the working public require resolution on a site-by-site basis and do not merit a change in the proposed NCP language. Special provisions may have to be made by the records coordinator, with the aid of other site team members, including the community relations coordinator or regional site manager, to ensure that the record location chosen is convenient to the public and that copying facilities are made available. Using public libraries to house the record should promote better availability of the record during non-working hours and on weekends. In response to mandating deadlines for lead agencies to place documents into the administrative record file, Agency guidance already directs record compilers to place documents into the record file as soon as they are received. Agency policy additionally prescribes a suggested time frame for placing documents in the record file. EPA believes that mandatory deadlines in the NCP would do little to increase the rate at which records are already compiled. The decision to place free copies of key documents in the record at or near the site will be a site-specific decision based on the level of community interest in these documents. Those who wish to make copies of key documents or any document contained in the administrative record file should already have access to copying facilities.

EPA received a comment requesting that it publish a joint notice of availability of the administrative record with a notice of availability of Technical Assistance Grants. Another comment stated that the removal site evaluation and engineering evaluation/cost analysis (EE/CA) must be included in the record for a non-time critical removal action.

Publishing notice of the availability of the record in tandem with announcements of the availability of Technical Assistance Grants (TAGs) is a good idea where TAGs are available for a removal action. The TAGs, however, are generally designed to support citizen involvement in technical issues for sites undergoing remedial actions. The one-year, $2 million limitations on removals and the limited number of alternatives usually reviewed make further expense on a technical advisor less beneficial than it might be for a long-term remedial action. As for placing the removal site evaluation and EE/CA in the administrative record, EPA agrees that generally such documents would be part of the administrative record for the removal action.

Finally, EPA is making a minor change to the language of § 300.820(a)(4). EPA is substituting the term "decision document" in place of action memorandum to allow for situations where the agency's decision document for a removal action is not named an action memorandum.

Final rule: 1. The second sentences of §§ 300.815(b), 300.820(a)(2) and 300.820(b)(2) are revised to reflect the new language on responding to comments as follows: "The lead agency is encouraged to consider and respond, as appropriate, to significant comments that were submitted prior to the public comment period."

2. In § 300.820(a)(4), the term "decision document" is substituted for "action memorandum."

3. The remainder of § 300.820(a) is promulgated as proposed.

Name: Section 300.820(b). Administrative record file for a removal action -- time-critical and emergency.

Proposed rule: Section 300.820(b) outlines steps for public participation and administrative record availability for time-critical and emergency removal responses [53 FR 51516]: "Documents included in the administrative record file shall be made available for public inspection no later than 60 days after initiation of on-site removal activity," at which point notification of the availability of the record must be published. The lead agency then, as appropriate, will provide a public comment period of not less than 30 days on the selection of the response action.

Response to comments: Several comments suggested that public comment requirements under § 300.820(b) were unnecessary and burdensome, especially the requirement to publish a notice of the availability of the record. One comment argued that requiring public notification of both record availability and of a site's inclusion on the NPL was unnecessary and duplicative. Another comment stated that the requirements for public notification and public comment are not appropriate for all time-critical removal actions, and recommended that the administrative record be available for review only for those time-critical removal actions that do require public notice and comment. A related comment stated that the requirement to publish a notice of availability of the administrative record for all time-critical removal actions be eliminated in favor of making the record available but not requiring an advertisement or comment period, since some time-critical removal actions are completed before a public comment period could be held. Others asked that the public comment period become mandatory, or at least mandatory for removal activities not already completed at the time the record is made available. Another comment requested that the record become available sooner -- at least 30 days after initiation of on-site removal activity -- because the current 60-day period prevented the consideration of any pre-work comments. A second comment supported the 60-day period. Finally, a commenter argued that it made little sense to make the record available after 60 days for an emergency response because the on-scene coordinator (OSC) report containing most of the response information isn't required to be completed until one year following the response action.

In general, the public participation requirements under § 300.820(b) are designed to preserve both the flexibility and discretion required by the lead agency in time-critical removal action situations as well as EPA's commitment to encouraging public participation and to keeping an affected community well-informed. EPA believes the notification and comment periods required in § 300.820(b) provide for both Agency flexibility and meaningful public involvement. The regulatory language stating that "The lead agency shall, as appropriate, provide a public comment period of not less than 30 days" provides the lead agency needed flexibility when the emergency nature of circumstances makes holding a comment period infeasible.

While EPA believes that it is necessary to announce the availability of the administrative record for time-critical and emergency removal actions as well as non-time critical actions, EPA believes that requiring establishment of the administrative record and publishing a notice of its availability 30 days after initiating a removal action in all cases, instead of "no later than 60 days after initiating a removal action," as proposed, would be somewhat premature. It has been EPA's experience that it often takes 60 days to stabilize a site (i.e., those activities that help to reduce, retard or prevent the spread of a hazardous substance release and help to eliminate an immediate threat). EPA believes that the overriding task of emergency response teams during this critical period must be the undertaking of necessary stabilization, rather than administrative duties. Compiling and advertising the record before a site has become stabilized would divert emergency response teams from devoting their full attention to a response. EPA believes that such administrative procedures are better left for after site stabilization.

Public notice requirements for announcing the availability of the administrative record and for a site's inclusion on the NPL are not duplicative, but notify the public of two very different decisions. Removal actions do not always take place at sites on the NPL, therefore, the notice requirements are obviously not duplicative for these removal actions. For remedial sites that are on the NPL, the administrative record need not be established for some time after listing on the NPL, so publishing a notice of the availability of the record would be essential to make the affected public cognizant of site progress and their opportunity for review of documents included in the record.

Lastly, the procedures specified in § 300.820(b) are applicable to an emergency removal that starts and finishes within 60 days. However, as provided in 300.820(b)(2), a comment period is held only where the lead agency deems it appropriate. But because the administrative record is an avenue for public information as well as for public comment, EPA also believes that even if the action is completed before the record file is made available, it is still appropriate to make the record available to the public. There is also no inherent contradiction in the OSC report being available one year after completion of the response action while the administrative record becomes available 60 days after initiation of on-site activities. Since the OSC report is a summary of the site events and is not a document which is considered in the selection of response action, it is not generally included in the administrative record.

Final rule: EPA is promulgating § 300.820(b) as proposed, except that:

1. The second sentence of § 300.820(b)(2) is revised on responding to public comments as described above.

2. Section 300.820(b)(3) is revised consistent with § 300.820(a)(4); the term "action memorandum" is changed to "decision document."

Name: **Section 300.825. Record requirements after decision document is signed.**

Proposed rule: Section 300.825 describes situations where documents may be added to the administrative record after the decision document is signed. Documents may be added to a record in the following circumstances: when the document addresses a portion of the decision which the decision document does not address or reserves for later; when the response action changes and an explanation of significant differences or an amended decision document is issued; when the agency holds additional public comment periods after the decision is signed; and when the agency receives comments containing "significant information not contained elsewhere in the record which could not have been submitted during the public comment period which substantially support the need to significantly alter the response action" (53 FR 51516). In addition, Subpart E of the proposed NCP discusses ROD amendments and Explanations of Significant Differences. Explanations of Significant Differences may be used for significant changes which do not fundamentally change the remedy, and do not require public comment. ROD amendments must be used for fundamental changes, and require a public comment period.

Response to comments: One commenter asked that Subpart I reflect the factors consistently applied by courts when determining whether the record should be supplemented, including such criteria as Agency reliance on factors not included in the record; an incomplete record, and strong evidence that EPA engaged in improper behavior or acted in bad faith. A related comment stated that since general principles of administrative law apply to administrative record restrictions and supplementing the record, language limiting supplementing the record should be deleted from the NCP. EPA believes that including specific tenets of administrative law governing supplementing of the record in the NCP itself is unnecessary. These tenets apply to record review of response actions whether or not they are included in the NCP. The requirements of § 300.825(c) do not supplant principles on supplementing administrative records.

Another comment recommended that EPA permit the record to be supplemented with any issue contested by a PRP, while granting an objective third party the ability to accept or reject record supplements. EPA already requires that any documents concerning remedy selection submitted by PRPs within the public comment period be included in the record. All significant evidence submitted after the decision document is complete is already included in the record, so long as it meets the requirements of § 300.825(c); it is not included elsewhere in the record, could not have been submitted during the public comment period and supports the need to significantly alter the response action. EPA believes these criteria are reasonable and do not require the use of a third-party arbitrator.

One comment stated that all PRP submissions must be placed in the record in order to protect a party's due-process right to be heard. EPA disagrees that all PRP submissions to the lead agency must be placed in the record in order to protect the party's due process rights. The process provided in the rules -- including the notice of availability of the proposed plan and the administrative record for review, the availability of all documents underlying the response selection decision for review throughout the decision-making process, the opportunity to comment on the proposed plan and all documents in the administrative record file, the requirement that the lead agency consider and respond to all significant PRP comments raised during the comment period, the notice of significant chances to the response selection, and the opportunity to submit, and requirement that the lead agency consider, any new significant information that may substantially support the need to significantly alter the response selection even after the selection decision -- is sufficient to satisfy due process. Moreover, the opportunity provided for PRP and public involvement in response selection exceeds the minimum public participation requirements set forth by the statute. Placing a reasonable limit on the length of time in which comments must be submitted, and providing for case-by-case acceptance of late comments through § 300.825(c), does not infringe upon procedural rights of PRPs.

One commenter asked that the permissive "may" in § 300.825(a) be changed so there is no lead-agency discretion over whether to add to the administrative record documents submitted after the remedy selection, and stated that additional public comment periods as outlined in § 300.825(b) should not only be at EPA's option. A related comment stated that the multiple qualifiers in § 300.825(c), including the phrases "substantially support the need" and "significantly alter the response action," (53 FR 51516) grant EPA overly broad discretionary powers over what documents may be added to the record. The commenter suggests deleting the word "substantially," as well as stating that all comments, even those disregarded by EPA, should be included in the record for the purpose of judicial review. EPA disagrees that the word "may" in either § 300.825(a) or § 300.825(b) is too permissive. Section 300.825(b) of the proposal was simply intended to clarify the lead agency's implicit authority to hold additional public comment periods, in addition to those required under Subpart E for ROD amendments, whenever the lead agency decides it would be appropriate. Because these additional comment periods are not required by statute or regulation, the "permissive" language simply reflects the lead agency's discretion with respect to these additional public involvement opportunities. Similarly, lead-agency discretion to add to the administrative record documents submitted after a decision document has been signed provides the lead agency the option to go beyond the minimum requirements for public participation outlined in the statute. In response to requests to delete the qualifiers in § 300.825(c), this language is intentionally designed to define carefully the circumstances in which EPA must consider comments submitted after the response action has been selected. This standard recognizes CERCLA's mandate to proceed expeditiously to implement selected response actions, but also recognizes that there will be certain instances in which significant new information warrants reconsideration of the selected response action. Section 300.825(c) is intended to provide a reasonable limit on what comments EPA must review or consider after a decision has been made.

Several commenters requested that PRPs not identified until after the close of the public comment period should be allowed an opportunity to comment on the record within 60 days of EPA's notification of potential liability. EPA makes significant efforts to involve PRPs as early in the process as possible. When PRPs are identified late in the process, they may provide EPA with comments at that time. EPA will consider comments which are submitted after the decision document is signed in accordance with the criteria of § 300.825(c). This is true no matter when the PRP is identified in the process. EPA believes that the current rule is sufficient for granting these late-identified PRPs the opportunity for submitting late comments for the record.

One commenter stated that new information that confirms or substantiates prior public comment should be made part of the record, even after a ROD is signed. EPA is not required by statute or regulation to consider these comments, although a lead agency may, and frequently does, consider post-ROD comments it considers to be significant -- in which case both the comment and the lead agency's response are part of the record.

Finally, EPA is making a minor change to § 300.825(b) on additional public comment periods to clarify that, in addition to comments and responses to comments, documents supporting the request for an additional comment period, and any decision documents would be placed in the administrative record file. Although this is what EPA intended in the proposal, a clarification is necessary to ensure consistency.

Final rule: EPA is promulgating § 300.825 as proposed except for an addition to the last sentence of section (b) as follows: "All additional comments submitted during such comment periods that are responsive to the request, and any response to these comments, along with documents supporting the request and any final decision with respect to the issue, shall be placed in the administrative record file."

SUBPART J -- USE OF DISPERSANTS AND OTHER CHEMICALS

The following sections discuss comments received on Subpart J and EPA's responses.

Name: Sections 300.900 - 300.920. General.

Existing rule: Section 300.81 described the purpose and applicability of existing Subpart H (now Subpart J), and § 300.82 defines the key terms used in the regulation. Section 300.83 provides that EPA shall maintain a schedule of dispersants and other chemical or biological products that may be authorized for use on oil discharges called the "NCP Product Schedule."

Section 300.84 sets forth the procedures by which an OSC may authorize the use of products listed on the NCP Product Schedule. The section provides that an OSC, with concurrence of the EPA representative to the RRT and the concurrence of the state(s) with jurisdiction over the navigable waters (as defined by the CWA) polluted by the oil discharge, may authorize the use of dispersants, surface collecting agents, and biological additives listed on the NCP Product Schedule.

This section also provides that if the OSC determines that the use of a dispersant, surface collecting agent, or biological additive is necessary to prevent or substantially reduce a hazard to human life, and there is insufficient time to obtain the needed concurrences, the OSC may unilaterally authorize the use of any product, including a product not on the NCP Product Schedule. In such instances, the OSC must inform the EPA RRT representative and the affected states of the use of a product as soon as possible and must obtain their concurrence for the continued use of the product once the threat to human life has subsided. This provision eliminates delays in potentially life-threatening situations, such as spills of highly flammable petroleum products in harbors or near inhabited areas. Although they will not be listed on the Schedule, this section also provides for authorization of the use of burning agents on a case-by-case basis. The use of sinking agents is prohibited.

Section 300.84 explicitly encourages advance planning for the use of dispersants and other chemicals. The OSC is authorized to approve the use of dispersants and other chemicals without the concurrence of the EPA representative to the RRT and the affected states if these parties have previously approved a plan identifying the products that may be used under and the particular circumstances that their use is preauthorized.

Section 300.85 details the data that must be submitted before a dispersant, surface collecting agent, or biological additive may be placed on the NCP Product Schedule. Section 300.86

describes the procedures for placing a product on the Product Schedule and also sets forth requirements designed to avoid possible misrepresentation or misinterpretation of the meaning of the placement of a product on the Schedule, including the wording of a disclaimer to be used in product advertisements or technical literature referring to placement on the Product Schedule.

Appendix C details the methods and types of apparatus to be used in carrying out the revised standard dispersant effectiveness and aquatic toxicity tests. Appendix C also sets forth the format required for summary presentation of product test data.

Proposed rule: Proposed Subpart J is very similar to Subpart H and contains only minor revisions. Section numbers and references to other sections and subparts have been changed where appropriate. Technical changes and minor wording changes to improve clarity have also been made.

Definitions formerly presented in Subpart H have been moved to Subpart A, and a new definition has been added for miscellaneous oil spill control agents. Accordingly, a list of data requirements for miscellaneous spill control agents is proposed to be added to § 300.915. The definition for navigable waters is as defined in 40 CFR 110.1.

Section 300.910, which addressed "Authorization of use," was modified slightly in the proposed regulation to emphasize the importance of obtaining concurrence for the use of dispersants and other chemicals from the appropriate state representatives to the Regional Response Team (RRT) and the DOC/DOI natural resource trustees "as appropriate."

Response to comments: 1. Involvement of DOC/DOI trustees. Many commenters opposed the inclusion of the DOC/DOI trustees in the authorization of use procedure, § 300.910(a). Noting that dispersants must be used quickly to be effective, commenters asserted that the decision-making process for responding to an oil spill is already too time-consuming and requires too many people to make a timely decision. At most, several commenters suggested, the DOC/DOI trustees should be consulted rather than having a concurrence. Other commenters recommended that the OSC be able to act unilaterally or be required to obtain concurrences from only one other entity such as the affected state RRT representative or the National Oceanic and Atmospheric Administration (NOAA) Scientific Support Coordinator (SSC).

In response, as discussed in the preamble to the proposal, the decision to use a chemical is highly dependent upon specific circumstances, locations and conditions which must be assessed by the OSC, and the EPA and the state RRT representative and DOC/DOI trustees are in a unique position to understand local conditions and to collect and coordinate quickly the necessary local information. Further, to facilitate a timely decision, the preamble urged early involvement of the EPA and state RRT representatives and DOC/DOI trustees, as appropriate. The intention of the addition of the DOC/DOI trustees was not to make the process more cumbersome, but to reflect the concurrence procedures that are already actually applied. However, EPA believes that the many commenters concerning this issue have raised a significant distinction regarding concurrence during an emergency, which should be a streamlined procedure, and concurrence during a planning procedure. The final rule will be revised, therefore, to recognize that distinction. It will return to the authorization language of the previous Subpart H with the addition of the provision that DOC/DOI trustees be consulted, as appropriate. Language has been added to § 300.910(e), however, to require that the DOC/DOI trustees concur with advance authorizations of the use of dispersants, surface collecting agents, biological additives, or miscellaneous oil spill control agents and the use of burning agents. EPA believes that this change reflects the current concurrence process that is actually used in both preplanning and operational approval situations, retains for the OSC the obligation to seek the consultation, when practicable, of the natural resource trustees in an emergency situations, but retains the flexibility to authorize the use of chemicals in such situations by a streamlined procedure when necessary.

Some commenters supported the extension of the concurrence authority granted in 300.910(a) to the DOC/DOI trustee agencies to include pre-planning for the use of chemical and biological agents outlined in paragraph (e) of this section. Although the DOC/DOI concurrence requirement has been deleted from paragraph (a) of the Authorization of use section, concurrence of the DOC/DOI trustee agencies will be required before a chemical or biological agent can be pre-authorized.

2. Approval and concurrence. Several commenters supported the concept of "pre-approval" of dispersants suggesting that the EPA encourage advance planning, and several commenters implied that this provision had been removed in proposed Subpart J. EPA believes that § 300.910(e) continues to endorse the concept that RRTs make preauthorization determinations. This section is essentially unchanged from the previous Subpart H.

Some commenters suggested that the responder be able to unilaterally authorize the use of surface collecting agents or similar compounds which limit the spread of oil or can enhance its recoverability. EPA does not believe and has been provided with no substantial evidence to support a determination that there is any reason to exempt surface collecting agents or similar products from the general requirement for state and RRT concurrence. EPA intends that RRT advance planning under § 300.910(e) be used to address where the use of such agents should be encouraged or restricted on a regional basis.

3. *Dispersants*. Several commenters supported a requirement that dispersants be considered on an equal basis with other spill management tools or be considered as a first response option. Conversely, two commenters recommended that the NCP state a clear policy to the effect that dispersants are a less desirable choice and should be considered only when the threat to human life and property will not allow for containment and removal. EPA believes that the circumstances surrounding oil spills to navigable waters and the factors influencing the choice of a response method or methods are many and that the NCP should not indicate a preference for one cleanup method over another. Section 300.310(b) states that of the numerous chemical or physical methods that may be used to recover spilled oil or mitigate its effects, the chosen methods shall be the most consistent with protecting public health and welfare and the environment.

4. *NCP Product Schedule*. Commenters suggested that the listing of a product on the NCP Product Schedule should constitute "pre-approval" for the use of those products, subject to a series of well-defined guidelines such as those developed by American Society of Testing and Materials (ASTM) Committee F-20. As an alternative, they suggested that Subpart J should include an additional section containing those products that are "pre-approved." Placement of a product on the NCP Product Schedule currently does not mean that EPA has confirmed the safety or effectiveness of the product or in any way endorses the product. The purpose of the standardized testing procedures set out in Appendix C is to ensure that OSCs have comparable data regarding the effectiveness and toxicity of different products. The circumstances under which dispersants and other chemicals may be used are many. It is inappropriate, therefore, to establish generic criteria that could be used to determine whether a product is or is not appropriate for a particular use under all circumstances. As discussed earlier, therefore, EPA believes that the RRTs deliberations provide the best forum to make determinations as to whether the use of a dispersant or other chemical should be approved for use in a particular situation under all the circumstances of the spill and its location.

A commenter noted that California, as well as other states, has promulgated more restrictive lists of permitted oil spill cleanup agents and recommended that this fact should be noted in the NCP. EPA believes that the RCP is the appropriate document to recognize these products. In situations that pose a threat to human life, this same commenter objected to the provision that permits the OSC to authorize products not listed on the NCP Product Schedule and products that have not passed state tests which evaluate performance and safety. The commenter also questioned the efficacy of stockpiling such products in sufficient volumes and close enough to potential spill locations to be of any use. EPA does not agree with this recommendation. A life-threatening oil discharge such as a spill of highly flammable petroleum products in harbors or near inhabited areas may occur at a location where chemical agents on the Schedule or state lists are not immediately available for a wide variety of reasons. In such a case, EPA believes that the OSC must have the discretion to use any products that, in his professional judgement, would effectively and expeditiously mitigate the threat to human life.

Another commenter suggested that dispersant test applications be conducted on a spill concurrently with the deliberations of the RRT regarding the authorization of a dispersant in a specific situation. EPA believes that such a procedure could undermine the role of the RRT. Instead, EPA believes that the most effective way to streamline the decision to use or not to use chemical countermeasures, is for the RRTs to continue moving forward with pre-authorization planning efforts.

A commenter asserted that acceptance of a proposed oil spill control agent for inclusion in the NCP Product Schedule must be predicated on EPA's judgement that the agent meets some minimum criteria for the proposed use. Currently, the data requirements for placement of a product on the Schedule are designed to provide sufficient data for OSCs to judge whether and in what quantities a dispersant may safely be used to control a particular discharge. As noted earlier, the standardized testing procedures in Appendix C are intended to ensure that OSCs have comparable data regarding the product's effectiveness, toxicity and other characteristics. EPA has historically recognized this situation by providing the type of case-specific approval that has been the NCP policy regarding the use of chemical countermeasures for a great many years. EPA, however, recognizes the value of establishing minimum criteria that would limit which such products could be considered by the Responsible Party and/or the OSC on spills into navigable waters. Therefore, EPA is in the process of examining the dispersant authorization policies of other countries, particularly with regard to the application of minimum criteria or standards. A study to re-evaluate the toxicity test in light of state-of-the-art developments is also underway. EPA believes that defining minimum criteria should be considered and invites recommendations from interested parties regarding threshold criteria for effectiveness and toxicity of dispersants and other chemical agents.

4. Other comments. Several commenters suggested that the NCP include a requirement to use the EPA's Computerized Decision Tree (CDT) for oil spill response. EPA recognizes that the CDT is a tool to assist in making dispersant use or non-use decisions but EPA believes that mandating its use in all situations is inappropriate.

Some commenters suggested that all parties to a dispersant use decision be required to have hands-on training in oil spill containment, recovery, cleanup, and dispersants and other chemical countermeasures from a recognized authority. While this appears to be a worthy goal, it would be difficult to regulate on a national basis, both from the perspective of certifying training programs and monitoring RRT members who have or have not received training. EPA believes that these types of training requirements are best addressed on a regional basis and not by regulation.

A commenter suggested that there should be a rapid and simplified way to obtain local approval to carry out field exercises and tests on real oil with real dispersants in limited quantities. EPA believes that the NCP does not need to be amended to address this point and refers the commenter to 40 CFR Part 110.9. State RRT representatives can offer advice about compliance with their regulations on the authorization of intentional spills for research and demonstration purposes.

One commenter recommended that the third sentence in § 300.910(e) should be changed to read: "If the RRT representative with jurisdiction over the waters of the area to which a RCP applies approves in advance the use of products as described in the NCP Product Schedule, the OSC may authorize the use of the products without obtaining the specific concurrences described in paragraph (a) of this section." EPA disagrees with this recommendation. While the addition to the inclusion of the DOC/DOI trustee agencies in any pre-authorization decision has been addressed earlier, EPA would like to emphasize the importance of obtaining the concurrence of the affected states in pre-planning agreements and believes that specific mention of the state role will accomplish this.

Final rule: Proposed Subpart J has been revised as follows:

1. "Hazardous Substance Releases [Reserved]" has been added to § 300.905(b) to clarify that § 300.905(a) applies only to oil discharges.

2. Sections 300.910(a), (b) and (c) have been revised to state that the OSC should consult with the DOC and DOI natural resource trustee, rather than receive their concurrence, on the use of dispersants, burning agents, etc.

3. Section 300.910(e) has been revised to add a reference to the DOC and DOI natural resource trustees.

APPENDIX C TO PART 300 -- REVISED STANDARD DISPERSANT EFFECTIVENESS AND TOXICITY TESTS

No comments were received on the proposed revisions to Appendix C to Part 300. The two proposed technical corrections have been made to Appendix C. First, in the calculations sections, 2.5 and 2.6, the formulas of equations (2), (3), and (5) for concentration of oil (C_{do}) in the sample, dispersant blank correction (D), and oil blank correction (OBC) have been corrected. Second, the units of viscosity (item 3, part IX in section 4.0) have been changed from furol seconds to centistokes. Last, the new 1988 ASTM standards has been cited for reference to viscosity in centistokes.

APPENDIX D TO PART 300 -- APPROPRIATE ACTIONS AND METHODS OF REMEDYING RELEASES

No comments were received on the proposed Appendix D to Part 300. EPA is promulgating Appendix D as proposed. Appendix D includes materials from existing § 300.68(j) on appropriate actions at remedial sites and existing § 300.70 on methods for remedying releases. The appendix describes general approaches and lists specific techniques but is not intended to be inclusive of all possible methods of addressing releases. A lead agency may respond to types of releases and employ techniques other than those that are listed, depending on the particular circumstances. EPA believes that the provisions in existing §§ 300.68(j) and 300.70 are not appropriate for inclusion in proposed Subpart E, which has been structured to focus on the sequence of response procedures. Because the materials do not impose any requirements or restrictions, they are appropriate for an appendix. It is intended that parties conducting response actions should consider the information provided in Appendix D.

SUMMARY OF SUPPORTING ANALYSES

A. Regulatory Impact Analysis of Revisions to CERCLA and the NCP.

There are two economic documents supporting today's final rule. The first (the September 1988 RIA) was prepared in September 1988 and supported the proposed rule (53 FR 51394).[32] EPA has since updated several of the key assumptions used in the September 1988 economic analysis and has prepared a second economic document entitled, "Regulatory Impact Analysis of Revisions to CERCLA and the National Contingency Plan" (November 1989 RIA). Both the September 1988 RIA and the November 1989 RIA are available in the Superfund Document Room of the U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C., 20460.

Both RIAs estimate total and incremental costs to the Fund, states, federal agencies, and responsible parties of implementing the remedial program during the period FY87 through FY91, the duration of reauthorization of the Superfund program. EPA has focused its analyses on four provisions with incremental costs and benefits attributable directly to the 1986 CERCLA amendments: (1) selection of remedy; (2) removals; (3) water restoration; and (4) publicly-operated sites. The impacts of these provisions are attributable directly to the 1986 CERCLA amendments, rather than to the NCP revisions, because in these areas EPA chose to retain the flexibility of the statutory language; the NCP essentially codifies the statutory requirements. The RIAs estimate the incremental costs of the provisions against a baseline defined by the requirements of CERCLA as specified in the 1985 NCP. The 1985 NCP is the proper baseline for the analysis of changes attributable to the statutory amendments because the 1985 NCP is the legal framework that defines response activities in the absence of the amendments to CERCLA.

The November 1989 RIA updates estimates for only the selection of remedy and water restoration provisions in today's final regulation. The analyses of the other provisions have not been updated because they did not rely on quantitative analyses, and no new data have been developed that would allow a quantitative analysis. In addition, the November 1989 RIA provides a new analysis of the costs of narrowing the range of risks to be considered in developing and selecting remedies. A brief summary of the analyses presented in the November 1989 RIA is provided below.

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[32] Environmental Protection Agency, "Regulatory Impact Analysis in Support of the Proposed Revisions to the National Oil and Hazardous Substances Pollution Contingency Plan," Office of Solid Waste and Emergency Response, September 1988.

1. Selection of remedy. The new CERCLA preference for reducing mobility, toxicity, and volume of contaminants at a site is assumed to be a preference for remedies that use treatment as a principal element. The analysis of the overall cost of the selection of remedy incorporates several assumptions:

- The estimated costs of treatment and containment remedies have not been updated since the September 1988 RIA. The estimates of selection of remedy costs were developed using cost data from 30 RODs, signed during the FY82 to FY86 period, that contained information on capital and operation and maintenance (O&M) costs for both treatment-based remedies and containment-based remedies at a site.

- The percentage of remedial action (RA) starts in FY87 and FY88 selecting treatment over containment was assumed to be the same as the percentage of RODs signed that selected treatment alternatives in the same year. Because of the time lag between ROD signature and the actual RA start, this assumption leads to an overestimate of the cost over the period studied, but provides a more accurate estimate of the potential impacts beyond the reauthorization period of CERCLA.

- The estimated number of RA starts in FY87 and FY88 was based on actual RA starts as reported in the CERCLA Information System (CERCLIS).

- The number of RA starts in FY89 through FY91 were estimated based on the mandatory schedules in section 116 of CERCLA for 175 RA starts by the end of FY89 and an additional 200 starts by FY91.

- The fraction of RA starts in FY89 through FY91 that would have treatment as the selected option was assumed to rise to 66 percent in FY89 and 80 percent in FY90 and FY91 as a consequence of the selection of remedy provisions in the 1986 CERCLA amendments.

EPA estimates that the total cost of the selection of remedy provisions in the 1986 amendments to CERCLA, during the FY87 through FY91 period, is $8.7 billion: $3.95 billion to the Fund; $0.58 billion to states; $3.15 billion to responsible parties; and $1.03 billion to federal agencies. The 5-year present value of the estimated incremental cost of the selection of remedy provisions over the costs imposed already by the 1985 NCP is $2.9 billion: $1.32 billion to the Fund; $0.14 billion to states; $1.05 billion to responsible parties; and $0.41 billion to federal agencies. Changes in program administrative costs are not included in these estimates.

A sensitivity analysis was included in the September 1988 RIA to determine how the cost estimates change if the most important assumptions used to derive the estimates are altered. In addition to varying the cost parameters used in the analysis, the frequency of use of treatment under the 1986 CERCLA amendments is varied between 50 percent of sites or operable units using treatment to 100 percent using treatment for the period FY89 through FY91. In the November 1989 RIA, the analysis of the effects of the frequency of use of treatment has been updated; the results of the sensitivity analysis estimates the total incremental costs of the selection of remedy provisions to be between $1.3 and $4.3 billion, with a best estimate of $2.9 billion.

The 1986 amendments to CERCLA require RAs to comply with state applicable or relevant and appropriate requirements (ARARs) that are more stringent than federal ARARs. To the extent possible, therefore, cost estimates used in the November 1989 RIA are for remedies expected to comply with federal ARARs and those state ARARs more stringent than the federal standards. The September 1988 RIA concluded that compliance with more stringent state ARARs may increase the costs of an RA by about $6.6 million. However, EPA does not believe that an additional $6.6 million will be incurred to meet state ARARs for every RA under CERCLA because many RODs signed prior to the 1986 CERCLA amendments already showed evidence of compliance with state ARARs and many states do not have relevant standards more stringent than federal standards.

2. Water restoration provisions. Under the 1985 NCP, states held primary responsibility for financing O&M costs associated with an RA at a Fund-lead site. During the first fiscal year after completion of the capital expenditure at a site, the Fund financed a maximum of 90 percent of the operational costs until EPA was assured that the remedy was operational and functional. In each subsequent year, the state financed 100 percent of O&M costs. The 1986 amendments to CERCLA change this funding relationship for RAs involving treatment to restore ground water or surface water. Long-term costs of treatment of contaminated ground water or surface water now are defined to be a component of the RA when treatment is being used to restore an aquifer or surface-water body. Hence, this provision transfers financing responsibilities at Fund-lead sites using water restoration as part of the selected remedy from the states to the Fund. Under the new provision, the Fund finances 90 percent of the costs of water restoration for up to 10 years; states finance the remaining 10 percent of costs during these years. As discussed in the November 1989 RIA, EPA estimates that approximately $50.5 million in obligations to pay for water restoration will be transferred from states to the Fund over the FY87-91 period as a result of the provisions on ground-water and surface-water restoration in the 1986 amendments to CERCLA. Because the provision results only in transfers of obligations to pay from

states to the Fund, it does not give rise to real economic costs or real economic benefits.

3. Use of risk range. As part of its continuing analysis, EPA has evaluated the incremental costs between remedies selected at the 10^{-6} and the 10^{-7} risk levels. EPA identified two potential activities that would likely be affected: (1) evaluation of remedies capable of achieving a 10^{-7} risk level; and (2) selection of such a remedy.

Most feasibility studies (FSs) and Records of Decision (RODs) completed to date include estimates of costs of achieving some stated threshold goal (e.g., MCLs, ARARs); other FSs and RODs are more detailed and estimate the effectiveness of various remedial alternatives in achieving specific risk target levels (e.g., 10^{-6} risk, "high", "medium", or "low" risk). Only a few FSs or RODs completed to date, however, actually contain cost estimates associated with achieving different risk levels or with achieving a risk level as low as 10^{-7}.

Because of the sparsity of data, EPA could not perform a detailed analysis of the incremental cost or cost savings attributable to different acceptable cleanup levels and, in particular, to establishing a broader or narrower acceptable risk level. In analyzing the costs incurred to date in developing different FSs, however, it became clear that generally the incremental cost of conducting a detailed evaluation of an alternative at one risk level versus "n" risk levels is minor relative to the cost of the FS. Essentially, the risk assessment and costing exercise relies on some sunk (i.e., fixed) costs associated with developing relationships (e.g., curves) that relate the amount of material to be treated to the risk levels that can be achieved. Once the relationship is developed, it is a relatively simple matter to generate estimates for one or any number of risk levels. EPA acknowledges, however, that the broader risk range may, in certain instances, result in an increased level of effort expended to evaluate additional alternatives or to do a more detailed analysis of existing alternatives.

EPA believes the greatest cost attributable to a broader risk range is associated with the implementation of a remedy that can achieve a 10^{-7} risk level. Based on data from the few sites that evaluated different alternatives at a range of risk levels, EPA estimates that the incremental cost of cleaning up to a 10^{-7} versus a 10^{-6} risk level ranges from approximately $700,000 to $10.4 million per site. These incremental costs represent a percentage cost increase from 13 to 50 percent. Because the survey was limited, there may be other sites where the percentage cost increase associated with cleanup to 10^{-7} rather than 10^{-6} may be lower or higher than 13 to 50 percent.

B. Executive Order No. 12291

Regulations must be classified as major or nonmajor to satisfy the rulemaking protocol established by Executive Order (E.O.) No. 12291. This Executive Order establishes the following criteria for a regulation to qualify as a major rule.

1. An annual effect on the economy of $100 million or more;
2. A major increase in costs or prices for consumers, individual industries, federal, state, or local government agencies or geographic regions; or
3. Significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

Based on the economic analyses summarized above, the revised NCP is a major rule because it will have an annual effect on the economy of $100 million or more. This regulation has been submitted to the Office of Management and Budget for review under Executive Order Nos. 12291 and 12580.

C. Regulatory Flexibility Act

In accordance with the Regulatory Flexibility Act of 1980, agencies must evaluate the effects of a regulation on small entities. If the rule is likely to have a "significant impact on a substantial number of small entities," then a Regulatory Flexibility Analysis must be performed. EPA certifies that today's rule will not have a significant impact on a substantial number of small entities.

Small businesses generally will be affected only by the changes that address selection of remedy. The cost of a Superfund cleanup, whether using containment-based remedies or treatment-based remedies, can be quite large and, in some cases, may be beyond the financial resources of a responsible party (RP). Because RPs can be in different industry sectors and face different market structures, each RP's ability to finance Superfund response actions could be very different. The analytical framework used in Chapter 8 of the September 1988 RIA to estimate the economic effects of the CERCLA provisions on typical RPs relies heavily on publicly-available financial information and makes the conservative assumption that each RP would be solely responsible for the entire RA cost. The analysis includes two financial tests performed on a sample of 15 firms selected randomly and varying in size. One test (the net income test) compares average response costs to the sample firm's net income or cash flow. The second test (a modified Beaver ratio) compares the sample firm's cash flow to its total liabilities, including response costs. On the basis of this analysis, EPA has determined that the revisions to the NCP will not result in a significant additional impact on a substantial number of small businesses. That is, to the extent that small businesses are significantly impacted under the revisions to the NCP, they were already significantly impacted under the 1985 NCP.

Municipalities also could be affected by the revisions to the selection of remedy provisions in the NCP because municipalities can be RPs. NPL sites owned by municipalities tend to be municipal wellfields and landfills. The cleanup of wellfields is undertaken to restore drinking water to a community either by pumping and treating a contaminant plume or building an alternative water distribution system. The contaminant plume usually has not been created by municipality actions; instead, the plume may have migrated from a nearby industrial waste site. As a result, the municipality is not likely to be liable for the costs of response actions. At municipal landfill sites, or other landfill sites that have accepted municipal wastes, the municipality also is not likely to be liable for 100 percent of response costs, because other entities typically have contributed to the site problem. The range of capital costs of cleanups at municipally-owned sites with RODs signed over the FY82 to FY86 period is from $304,000 for construction of an alternative water supply system to $23.2 million to cap a 90 acre landfill site.

The level of involvement of small municipalities in the Superfund program is not expected to change under the 1986 CERCLA amendments. The sites at which municipalities are most likely to be involved are not expected to be affected greatly by the new CERCLA selection of remedy provisions. The costs of cleaning up municipal landfills in particular are not expected to increase substantially as a result of the CERCLA amendments because the typical size of such sites limits the feasibility of implementing treatment-based remedies.

D. Paperwork Reduction Act

The information collection requirements contained in today's rule have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* and have been assigned OMB control number 2050-0096.

Public reporting burden for this collection of information is estimated to be a weighted average of 2,620 hours per respondent, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Respondent means states and other entities (excluding the federal government) conducting required activities associated with remedial actions.

Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C., 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C., 20503, marked "Attention: Desk Officer for EPA."

LIST OF SUBJECTS IN 40 CFR PART 300

Air pollution control, Chemicals, Hazardous materials, Hazardous substances, Incorporation by reference, Intergovernmental relations, Natural resources, Occupational safety and health, Oil pollution, Reporting and recordkeeping requirements, Superfund, Waste treatment and disposal, Water pollution control, Water supply.

Dated: FEB 2 1990

William K Reilly

William K. Reilly,
Administrator

Therefore, 40 CFR Part 300 is amended as follows:

1. The authority citation for Part 300 is revised to read as follows:

Authority: 42 U.S.C. 9601-9657; 33 U.S.C. 1321(c)(2); E.O. 11735, 38 FR 21243; E.O. 12580, 52 FR 2923.

2. Subparts A through H of Part 300 are revised. Subparts I and J are added, and Subpart K is added and reserved to read as follows:

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PART 300 -- NATIONAL OIL AND HAZARDOUS SUBSTANCES POLLUTION CONTINGENCY PLAN

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SUBPART A -- INTRODUCTION

§ 300.1 Purpose and objectives.

The purpose of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) is to provide the organizational structure and procedures for preparing for and responding to discharges of oil and releases of hazardous substances, pollutants, and contaminants.

§ 300.2 Authority and applicability.

The NCP is required by section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. 9605, as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), P.L. 99-499, (hereinafter CERCLA), and by section 311(c)(2) of the Clean Water Act (CWA), as amended, 33 U.S.C. 1321(c)(2). In Executive Order (E.O.) 12580 (52 FR 2923, January 29, 1987), the President delegated to the Environmental Protection Agency (EPA) the responsibility for the amendment of the NCP. Amendments to the NCP are coordinated with members of the National Response Team (NRT) prior to publication for notice and comment. This includes coordination with the Federal Emergency Management Agency and the Nuclear Regulatory Commission in order to avoid inconsistent or duplicative requirements in the emergency planning responsibilities of those agencies.

The NCP is applicable to response actions taken pursuant to the authorities under CERCLA and section 311 of the CWA.

§ 300.3 Scope.

(a) The NCP applies to and is in effect for:

(1) Discharges of oil into or upon the navigable waters of the United States and adjoining shorelines, the waters of the contiguous zone, and the high seas beyond the contiguous zone in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or which may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Magnuson Fishery Conservation and Management Act). (See sections 311(b)(1) and 502(7) of the CWA.)

(2) Releases into the environment of hazardous substances, and pollutants or contaminants which may present an imminent and substantial danger to public health or welfare.

(b) The NCP provides for efficient, coordinated, and effective response to discharges of oil and releases of hazardous substances, pollutants, and contaminants in accordance with the authorities of CERCLA and the CWA. It provides for:

(1) The national response organization that may be activated in response actions. It specifies responsibilities among the federal, state, and local governments and describes resources that are available for response.

(2) The establishment of requirements for federal regional and on-scene coordinator (OSC) contingency plans. It also summarizes state and local emergency planning requirements under SARA Title III.

(3) Procedures for undertaking removal actions pursuant to section 311 of the CWA.

(4) Procedures for undertaking response actions pursuant to CERCLA.

(5) Procedures for involving state governments in the initiation, development, selection, and implementation of response actions.

(6) Designation of federal trustees for natural resources for purposes of CERCLA and the CWA.

(7) Procedures for the participation of other persons in response actions.

(8) Procedures for compiling and making available an administrative record for response actions.

(9) National procedures for the use of dispersants and other chemicals in removals under the CWA and response actions under CERCLA.

(c) In implementing the NCP, consideration shall be given to international assistance plans and agreements, security regulations and responsibilities based on international agreements, federal statutes, and executive orders. Actions taken pursuant to the NCP shall conform to the provisions of international joint contingency plans, where they are applicable. The Department of State shall be consulted, as appropriate, prior to taking any action which may affect its activities.

§ 300.4 Abbreviations.

(a) Department and Agency Title Abbreviations:

ATSDR -- Agency for Toxic Substances and Disease Registry
DOC -- Department of Commerce
DOD -- Department of Defense

DOE -- Department of Energy
DOI -- Department of the Interior
DOJ -- Department of Justice
DOL -- Department of Labor
DOS -- Department of State
DOT -- Department of Transportation
EPA -- Environmental Protection Agency
FEMA -- Federal Emergency Management Agency
HHS -- Department of Health and Human Services
NIOSH -- National Institute for Occupational Safety and Health
NOAA -- National Oceanic and Atmospheric Administration
RSPA -- Research and Special Programs Administration
USCG -- United States Coast Guard
USDA -- United States Department of Agriculture

(Note: Reference is made in the NCP to both the Nuclear Regulatory Commission and the National Response Center. In order to avoid confusion, the NCP will spell out Nuclear Regulatory Commission and use the abbreviation "NRC" only with respect to the National Response Center.)

(b) Operational Abbreviations:

ARARs - Applicable or Relevant and Appropriate Requirements
CERCLIS -- CERCLA Information System
CRC -- Community Relations Coordinator
CRP -- Community Relations Plan
ERT -- Environmental Response Team
FCO -- Federal Coordinating Officer
FS -- Feasibility Study
HRS -- Hazard Ranking System
LEPC -- Local Emergency Planning Committee
NCP -- National Contingency Plan
NPL -- National Priorities List
NRC -- National Response Center
NRT -- National Response Team
NSF -- National Strike Force
O&M -- Operation and Maintenance
OSC -- On-Scene Coordinator
PA -- Preliminary Assessment
PIAT -- Public Information Assist Team
RA -- Remedial Action
RAT -- Radiological Assistance Team
RCP -- Regional Contingency Plan
RD -- Remedial Design
RI -- Remedial Investigation
ROD -- Record of Decision
RPM -- Remedial Project Manager
RRC -- Regional Response Center
RRT -- Regional Response Team
SAC -- Support Agency Coordinator

SERC -- State Emergency Response Commission
SI -- Site Inspection
SMOA -- Superfund Memorandum of Agreement
SSC -- Scientific Support Coordinator

§ 300.5 Definitions.

Terms not defined in this section have the meaning given by CERCLA or the CWA.

"Activation" means notification by telephone or other expeditious manner or, when required, the assembly of some or all appropriate members of the RRT or NRT.

"Alternative water supplies" as defined by section 101(34) of CERCLA, includes, but is not limited to, drinking water and household water supplies.

"Applicable requirements" means those cleanup standards, standards of control, and other substantive requirements, criteria or limitations promulgated under federal environmental or state environmental or facility siting laws that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance found at a CERCLA site. Only those state standards that are identified by a state in a timely manner and that are more stringent than federal requirements may be applicable.

"Biological additives" means microbiological cultures, enzymes, or nutrient additives that are deliberately introduced into an oil discharge for the specific purpose of encouraging biodegradation to mitigate the effects of the discharge.

"Burning agents" means those additives that, through physical or chemical means, improve the combustibility of the materials to which they are applied.

"CERCLA" is the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 as amended by the Superfund Amendments and Reauthorization Act of 1986.

"CERCLIS" is the abbreviation of the CERCLA Information System, EPA's comprehensive database and management system that inventories and tracks releases addressed or needing to be addressed by the Superfund program. CERCLIS contains the official inventory of CERCLA sites and supports EPA's site planning and tracking functions. Sites that EPA decides do not warrant moving further in the site evaluation process are given a "No Further Response Action Planned" (NFRAP) designation in CERCLIS. This means that no additional federal steps under CERCLA will be taken at the site unless future information so warrants. Sites are not removed from the database after completion of evaluations in order to document that these evaluations took place and to preclude the possibility that they be needlessly repeated. Inclusion of a specific site or area in the CERCLIS database does not represent a determination of any party's liability, nor does it represent a finding that any response action is necessary. Sites that are deleted from the NPL are not designated NFRAP sites. Deleted sites are listed in a separate category in the CERCLIS database.

"Chemical agents" means those elements, compounds, or mixtures that coagulate, disperse, dissolve, emulsify, foam, neutralize, precipitate, reduce, solubilize, oxidize, concentrate, congeal, entrap, fix, make the pollutant mass more rigid or viscous, or otherwise facilitate the mitigation of deleterious effects or the removal of the pollutant from the water.

"Claim" as defined by section 101(4) of CERCLA, means a demand in writing for a sum certain.

"Coastal waters" for the purposes of classifying the size of discharges, means the waters of the coastal zone except for the Great Lakes and specified ports and harbors on inland rivers.

"Coastal zone" as defined for the purpose of the NCP, means all United States waters subject to the tide, United States waters of the Great Lakes, specified ports and harbors on inland rivers, waters of the contiguous zone, other waters of the high seas subject to the NCP, and the land surface or land substrata, ground waters, and ambient air proximal to those waters. The term coastal zone delineates an area of federal responsibility for response action. Precise boundaries are determined by EPA/USCG agreements and identified in federal regional contingency plans.

"Community relations" means EPA's program to inform and encourage public participation in the Superfund process and to respond to community concerns. The term "public" includes citizens directly affected by the site, other interested citizens or parties, organized groups, elected officials, and potentially responsible parties.

"Community relations coordinator" means lead agency staff who work with the OSC/RPM to involve and inform the public about the Superfund process and response actions in accordance with the interactive community relations requirements set forth in the NCP.

"Contiguous zone" means the zone of the high seas, established by the United States under Article 24 of the Convention on the Territorial Sea and Contiguous Zone, which is contiguous to the territorial sea and which extends nine miles seaward from the outer limit of the territorial sea.

"Cooperative agreement" is a legal instrument EPA uses to transfer money, property, services, or anything of value to a recipient to accomplish a public purpose in which substantial EPA involvement is anticipated during the performance of the project.

"Discharge" as defined by section 311(a)(2) of the CWA, includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil, but excludes discharges in compliance with a permit under section 402 of the CWA, discharges resulting from circumstances identified and reviewed and made a part of the public record with respect to a permit issued or modified under section 402 of the CWA, and subject to a condition in such permit, or continuous or anticipated intermittent discharges from a point source, identified in a permit or permit application under section 402 of the CWA, that are caused by events occurring within the scope of relevant operating or treatment systems. For purposes of the NCP, discharge also means threat of discharge.

"Dispersants" means those chemical agents that emulsify, disperse, or solubilize oil into the water column or promote the surface spreading of oil slicks to facilitate dispersal of the oil into the water column.

"Drinking water supply" as defined by section 101(7) of CERCLA, means any raw or finished water source that is or may be used by a public water system (as defined in the Safe Drinking Water Act) or as drinking water by one or more individuals.

"Environment" as defined by section 101(8) of CERCLA, means the navigable waters, the waters of the contiguous zone, and the ocean waters of which the natural resources are under the exclusive management authority of the United States under the Magnuson Fishery Conservation and Management Act; and any other surface water, ground water, drinking water supply, land surface or subsurface strata, or ambient air within the United States or under the jurisdiction of the United States.

"Facility" as defined by section 101(9) of CERCLA, means any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft, or any site or area, where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located; but does not include any consumer product in consumer use or any vessel.

"Feasibility study" (FS) means a study undertaken by the lead agency to develop and evaluate options for remedial action. The FS emphasizes data analysis and is generally performed concurrently and in an interactive fashion with the remedial investigation (RI), using data gathered during the RI. The RI data are used to define the objectives of the response action, to develop remedial action alternatives, and to undertake an initial screening and detailed analysis of the alternatives. The term also refers to a report that describes the results of the study.

"First federal official" means the first federal representative of a participating agency of the National Response Team to arrive at the scene of a discharge or a release. This official coordinates activities under the NCP and may initiate, in consultation with the OSC, any necessary actions until the arrival of the predesignated OSC. A state with primary jurisdiction over a site covered by a cooperative agreement will act in the stead of the first federal official for any incident at the site.

"Fund" or "Trust Fund" means the Hazardous Substance Superfund established by section 9507 of the Internal Revenue Code of 1986.

"Ground water" as defined by section 101(12) of CERCLA, means water in a saturated zone or stratum beneath the surface of land or water.

"Hazard Ranking System" (HRS) means the method used by EPA to evaluate the relative potential of hazardous substance releases to cause health or safety problems, or ecological or environmental damage.

"Hazardous substance" as defined by section 101(14) of CERCLA, means: any substance designated pursuant to section 311(b)(2)(A) of the CWA; any element, compound, mixture, solution, or substance designated pursuant to section 102 of CERCLA; any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act (but not including any waste the regulation of which under the Solid Waste Disposal Act has been suspended by Act of Congress); any toxic pollutant listed under section 307(a) of the CWA; any hazardous air pollutant listed under section 112 of the Clean Air Act; and any imminently hazardous chemical substance or mixture with respect to which the EPA Administrator has taken action pursuant to section 7 of the Toxic Substances Control Act. The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance in the first sentence of this paragraph, and the term does not include natural gas, natural gas liquids, liquified natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).

"Indian tribe" as defined by section 101(36) of CERCLA, means any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village but not including any Alaska Native regional or village corporation, which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

"Inland waters," for the purposes of classifying the size of discharges, means those waters of the United States in the inland zone, waters of the Great Lakes, and specified ports and harbors on inland rivers.

"Inland zone" means the environment inland of the coastal zone excluding the Great Lakes and specified ports and harbors on inland rivers. The term inland zone delineates an area of federal responsibility for response action. Precise boundaries are determined by EPA/USCG agreements and identified in federal regional contingency plans.

"Lead agency" means the agency that provides the OSC/RPM to plan and implement response action under the NCP. EPA, the USCG, another federal agency, or a state (or political subdivision of a state) operating pursuant to a contract or cooperative agreement executed pursuant to section 104(d)(1) of CERCLA, or designated pursuant to a Superfund Memorandum of Agreement (SMOA) entered into pursuant to Subpart F of the NCP or other agreements may be the lead agency for a response action. In the case of a release of a hazardous substance, pollutant, or contaminant, where the release is on, or the sole source of the release is from, any facility or vessel under the jurisdiction, custody, or control of Department of Defense (DOD) or Department of Energy (DOE), then DOD or DOE will be the lead agency. Where the release is on, or the sole source of the release is from, any facility or vessel under the jurisdiction, custody, or control of a federal agency other than EPA, the USCG, DOD, or DOE, then that agency will be the lead agency for remedial actions and removal actions other than emergencies. The federal agency maintains its lead agency responsibilities whether the remedy is selected by the federal agency for non-NPL sites or by EPA and the federal agency or by EPA alone under CERCLA section 120. The lead agency will consult with the support agency, if one exists, throughout the response process.

"Management of migration" means actions that are taken to minimize and mitigate the migration of hazardous substances or pollutants or contaminants and the effects of such migration. Measures may include, but are not limited to, management of a plume of contamination, restoration of a drinking water aquifer, or surface water restoration.

"Miscellaneous oil spill control agent" is any product, other than a dispersant, sinking agent, surface collecting agent, biological additive, or burning agent, that can be used to enhance oil spill cleanup, removal, treatment, or mitigation.

"National Priorities List" (NPL) means the list, compiled by EPA pursuant to CERCLA section 105, of uncontrolled hazardous substance releases in the United States that are priorities for long-term remedial evaluation and response.

"Natural resources" means land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by the United States (including the resources of the exclusive economic zone defined by the Magnuson Fishery Conservation and Management Act of 1976), any state or local government, any foreign government, any Indian tribe, or, if such resources are subject to a trust restriction on alienation, any member of an Indian tribe.

"Navigable waters" as defined by 40 CFR § 110.1, means the waters of the United States, including the territorial seas. The term includes:

(a) All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide;

(b) Interstate waters, including interstate wetlands;

(c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, and wetlands, the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:

(1) That are or could be used by interstate or foreign travelers for recreational or other purposes;

(2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce;

(3) That are used or could be used for industrial purposes by industries in interstate commerce;

(d) All impoundments of waters otherwise defined as navigable waters under this section;

(e) Tributaries of waters identified in paragraphs (a) through (d) of this section, including adjacent wetlands; and

(f) Wetlands adjacent to waters identified in paragraphs (a) through (e) of this section: provided, that waste treatment systems (other than cooling ponds meeting the criteria of this paragraph) are not waters of the United States.

"Offshore facility" as defined by section 101(17) of CERCLA and section 311(a)(11) of the CWA, means any facility of any kind located in, on, or under any of the navigable waters of the United States and any facility of any kind which is subject to the jurisdiction of the United States and is located in, on, or under any other waters, other than a vessel or a public vessel.

"Oil" as defined by section 311(a)(1) of the CWA, means oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil.

"Oil pollution fund" means the fund established by section 311(k) of the CWA.

"On-scene coordinator" (OSC) means the federal official predesignated by EPA or the USCG to coordinate and direct federal responses under Subpart D, or the official designated by the lead agency to coordinate and direct removal actions under Subpart E of the NCP.

"Onshore facility" as defined by section 101(18) of CERCLA, means any facility (including, but not limited to, motor vehicles and rolling stock) of any kind located in, on, or under any land or non-navigable waters within the United States; and, as defined by section 311(a)(10) of the CWA, means any facility (including, but not limited to, motor vehicles and rolling stock) of any kind located in, on, or under any land within the United States other than submerged land.

"On-site" means the areal extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of the response action.

"Operable unit" means a discrete action that comprises an incremental step toward comprehensively addressing site problems. This discrete portion of a remedial response manages migration, or eliminates or mitigates a release, threat of a release, or pathway of exposure. The cleanup of a site can be divided into a number of operable units, depending on the complexity of the problems associated with the site. Operable units may address geographical portions of a site, specific site problems, or initial phases of an action, or may consist of any set of actions performed over time or any actions that are concurrent but located in different parts of a site.

"Operation and maintenance" (O&M) means measures required to maintain the effectiveness of response actions.

"Person" as defined by section 101(21) of CERCLA, means an individual, firm, corporation, association, partnership, consortium, joint venture, commercial entity, United States government, state, municipality, commission, political subdivision of a state, or any interstate body.

"Pollutant or contaminant" as defined by section 101(33) of CERCLA, shall include, but not be limited to, any element, substance, compound, or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring. The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under section 101(14)(A) through (F) of CERCLA, nor does it include natural gas, liquified natural gas, or synthetic gas of pipeline quality (or mixtures of natural gas and such synthetic gas). For purposes of the NCP, the term pollutant or contaminant means any pollutant or contaminant that may present an imminent and substantial danger to public health or welfare.

"Post-removal site control" means those activities that are necessary to sustain the integrity of a Fund-financed removal action following its conclusion. Post-removal site control may be a removal or remedial action under CERCLA. The term includes, without being limited to, activities such as relighting gas flares, replacing filters and collecting leachate.

"Preliminary assessment" (PA) means review of existing information and an off-site reconnaissance, if appropriate, to determine if a release may require additional investigation or action. A PA may include an on-site reconnaissance, if appropriate.

"Public participation," see the definition for community relations.

"Public vessel" as defined by section 311(a)(4) of the CWA, means a vessel owned or bareboat-chartered and operated by the United States, or by a state or political subdivision thereof, or by a foreign nation, except when such vessel is engaged in commerce.

"Quality assurance project plan" (QAPP) is a written document, associated with all remedial site sampling activities, which presents in specific terms the organization (where applicable), objectives, functional activities, and specific quality assurance (QA) and quality control (QC) activities designed to achieve the data quality objectives of a specific project(s) or continuing operation(s). The QAPP is prepared for each specific project or continuing operation (or group of similar projects or continuing operations). The QAPP will be prepared by the responsible program office, regional office, laboratory, contractor, recipient of an assistance agreement, or other organization. For an enforcement action, potentially responsible parties may prepare a QAPP subject to lead agency approval.

"Release" as defined by section 101(22) of CERCLA, means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant), but excludes: any release which results in exposure to persons solely within a workplace, with respect to a claim which such persons may assert against the employer of such persons; emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station engine; release of source, byproduct, or special nuclear material from a nuclear incident, as those terms are defined in the Atomic Energy Act of 1954, if such release is subject to requirements with respect to financial protection established by the Nuclear Regulatory Commission under section 170 of such Act, or, for the purposes of section 104 of CERCLA or any other response action, any release of source, byproduct, or special nuclear material from any processing site designated under section 102(a)(1) or 302(a) of the Uranium Mill Tailings Radiation Control Act of 1978; and the normal application of fertilizer. For purposes of the NCP, release also means threat of release.

"Relevant and appropriate requirements" means those cleanup standards, standards of control, and other substantive requirements, criteria or limitations promulgated under federal environmental or state environmental or facility siting laws that, while not "applicable" to a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site, address problems or situations sufficiently similar to those encountered at the CERCLA site that their use is well suited to the particular site. Only those state standards that are identified in a timely manner and are more stringent than federal requirements may be relevant and appropriate.

"Remedial design" (RD) means the technical analysis and procedures which follow the selection of remedy for a site and result in a detailed set of plans and specifications for implementation of the remedial action.

"Remedial investigatioh" (RI) is a process undertaken by the lead agency to determine the nature and extent of the problem presented by the release. The RI emphasizes data collection and site characterization, and is generally performed concurrently and in an interactive fashion with the feasibility study. The RI includes sampling and monitoring, as necessary, and includes the gathering of sufficient information to determine the necessity for remedial action and to support the evaluation of remedial alternatives.

"Remedial project manager" (RPM) means the official designated by the lead agency to coordinate, monitor, or direct remedial or other response actions under Subpart E of the NCP.

"Remedy or remedial action" (RA) means those actions consistent with permanent remedy taken instead of, or in addition to, removal action in the event of a release or threatened release of a hazardous substance into the environment, to prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health or welfare or the environment. The term includes, but is not limited to, such actions at the location of the release as storage, confinement, perimeter protection using dikes, trenches, or ditches, clay cover, neutralization, cleanup of released hazardous substances and associated contaminated materials, recycling or reuse, diversion, destruction, segregation of reactive wastes, dredging or excavations, repair or replacement of leaking containers, collection of leachate and runoff, on-site treatment or incineration, provision of alternative water supplies, any monitoring reasonably required to assure that such actions protect the public health and welfare and the environment and, where appropriate, post-removal site control activities. The term includes the costs of permanent relocation of residents and businesses and community facilities (including the cost of providing "alternative land of equivalent value" to an Indian tribe pursuant to CERCLA section 126(b)) where EPA determines that, alone or in combination with other measures, such relocation is more cost-effective than, and environmentally preferable to, the transportation, storage, treatment, destruction, or secure disposition off-site of such hazardous substances, or may otherwise be necessary to protect the public health or welfare; the term includes off-site transport and off-site storage, treatment, destruction, or secure disposition of hazardous substances and associated contaminated materials. For the purpose of the NCP, the term also includes enforcement activities related thereto.

"Remove or removal" as defined by section 311(a)(8) of the CWA, refers to removal of oil or hazardous substances from the water and shorelines or the taking of such other actions as may be necessary to minimize or mitigate damage to the public health, welfare, or to the environment. As defined by section 101(23) of CERCLA, remove or removal means the cleanup or removal of released hazardous substances from the environment; such actions as may be necessary taken in the event of the threat of release of hazardous substances into the environment; such actions as may be necessary to monitor, assess, and evaluate the release or threat of release of hazardous substances; the disposal of removed material; or the taking of such other actions as may be necessary to prevent, minimize, or mitigate damage to the public health or welfare or to the environment, which may otherwise result from a release or threat of release. The term includes, in addition, without being limited to, security fencing or other measures to limit access, provision of alternative water supplies, temporary evacuation and housing of threatened individuals not otherwise provided for, action taken under section 104(b) of CERCLA, post-removal site control, where appropriate, and any emergency assistance which may be provided under the Disaster Relief Act of 1974. For the purpose of the NCP, the term also includes enforcement activities related thereto.

"Respond or response" as defined by section 101(25) of CERCLA, means remove, removal, remedy, or remedial action, including enforcement activities related thereto.

"SARA" is the Superfund Amendments and Reauthorization Act of 1986. In addition to certain free-standing provisions of law, it includes amendments to CERCLA, the Solid Waste Disposal Act, and the Internal Revenue Code. Among the free-standing provisions of law is Title III of SARA, also known as the "Emergency Planning and Community Right-to-Know Act of 1986" and Title IV of SARA, also known as the "Radon Gas and Indoor Air Quality Research Act of 1986." Title V of SARA amending the Internal Revenue Code is also known as the "Superfund Revenue Act of 1986."

"Sinking agents" means those additives applied to oil discharges to sink floating pollutants below the water surface.

"Site inspection" (SI) means an on-site investigation to determine whether there is a release or potential release and the nature of the associated threats. The purpose is to augment the data collected in the preliminary assessment and to generate, if necessary, sampling and other field data to determine if further action or investigation is appropriate.

"Size classes of discharges" refers to the following size classes of oil discharges which are provided as guidance to the OSC and serve as the criteria for the actions delineated in Subpart D. They are not meant to imply associated degrees of hazard to public health or welfare, nor are they a measure of environmental injury. Any oil discharge that poses a substantial threat to public health or welfare or the environment or results in significant public concern shall be classified as a major discharge regardless of the following quantitative measures:

(a) Minor discharge means a discharge to the inland waters of less than 1,000 gallons of oil or a discharge to the coastal waters of less than 10,000 gallons of oil.

(b) Medium discharge means a discharge of 1,000 to 10,000 gallons of oil to the inland waters or a discharge of 10,000 to 100,000 gallons of oil to the coastal waters.

(c) Major discharge means a discharge of more than 10,000 gallons of oil to the inland waters or more than 100,000 gallons of oil to the coastal waters.

"Size classes of releases" refers to the following size classifications which are provided as guidance to the OSC for meeting pollution reporting requirements in Subpart B. The final determination of the appropriate classification of a release will be made by the OSC based on consideration of the particular release (e.g., size, location, impact, etc.):

(a) Minor release means a release of a quantity of hazardous substance(s), pollutant(s), or contaminant(s) that poses minimal threat to public health or welfare or the environment.

(b) Medium release means a release not meeting the criteria for classification as a minor or major release.

(c) Major release means a release of any quantity of hazardous substance(s), pollutant(s), or contaminant(s) that poses a substantial threat to public health or welfare or the environment or results in significant public concern.

"Source control action" is the construction or installation and start-up of those actions necessary to prevent the continued release of hazardous substances or pollutants or contaminants (primarily from a source on top of or within the ground, or in buildings or other structures) into the environment.

"Source control maintenance measures" are those measures intended to maintain the effectiveness of source control actions once such actions are operating and functioning properly, such as the maintenance of landfill caps and leachate collection systems.

"Specified ports and harbors" means those ports and harbor areas on inland rivers, and land areas immediately adjacent to those waters, where the USCG acts as predesignated on-scene coordinator. Precise locations are determined by EPA/USCG regional agreements and identified in federal regional contingency plans.

"State" means the several states of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the Virgin Islands, the Commonwealth of Northern Marianas, and any other territory or possession over which the United States has jurisdiction. For purposes of the NCP, the term includes Indian tribes as defined in the NCP except where specifically noted. Section 126 of CERCLA provides that the governing body of an Indian tribe shall be afforded substantially the same treatment as a state with respect to certain provisions of CERCLA. Section 300.515(b) of the NCP describes the requirements pertaining to Indian tribes that wish to be treated as states.

"Superfund Memorandum of Agreement" (SMOA) means a nonbinding, written document executed by an EPA Regional Administrator and the head of a state agency that may establish the nature and extent of EPA and state interaction during the removal, pre-remedial, remedial, and/or enforcement response process. The SMOA is not a site-specific document although attachments may address specific sites. The SMOA generally defines the role and responsibilities of both the lead and the support agencies.

"Superfund state contract" is a joint, legally binding agreement between EPA and a state to obtain the necessary assurances before a federal-lead remedial action can begin at a site. In the case of a political subdivision-lead remedial response, a three-party Superfund state contract among EPA, the state, and political subdivision thereof, is required before a political subdivision takes the lead for any phase of remedial response to ensure state involvement pursuant to section 121(f)(1) of CERCLA. The Superfund state contract may be amended to provide the state's CERCLA 104 assurances before a political subdivision can take the lead for remedial action.

"Support agency" means the agency or agencies that provides the support agency coordinator to furnish necessary data to the lead agency, review response data and documents, and provide other assistance as requested by the OSC or RPM. EPA, the USCG, other federal agency, or a state may be support agencies for a response action if operating pursuant to a contract executed under section 104(d)(1) of CERCLA or designated pursuant to a Superfund Memorandum of Agreement entered into pursuant to Subpart F of the NCP or other agreement. The support agency may also concur on decision documents.

"Support agency coordinator" (SAC) means the official designated by the support agency, as appropriate, to interact and coordinate with the lead agency in response actions under Subpart E of this Part.

"Surface collecting agents" means those chemical agents that form a surface film to control the layer thickness of oil.

"Threat of discharge or release," see definitions for discharge and release.

"Threat of release," see definition for release.

"Treatment technology" means any unit operation or series of unit operations that alters the composition of a hazardous substance or pollutant or contaminant through chemical, biological, or physical means so as to reduce toxicity, mobility, or volume of the contaminated materials being treated. Treatment technologies are an alternative to land disposal of hazardous wastes without treatment.

"Trustee" means an official of a federal natural resources management agency designated in Subpart G of the NCP or a designated state official or Indian tribe who may pursue claims for damages under section 107(f) of CERCLA.

"United States" when used in relation to section 311(a)(5) of the CWA, means the states, the District of Columbia, the Commonwealth of Puerto Rico, the Northern Mariana Islands, Guam, American Samoa, the United States Virgin Islands, and the Pacific Island Governments. United States, when used in relation to section 101(27) of CERCLA, includes the several states of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Commonwealth of the Northern Marianas, and any other territory or possession over which the United States has jurisdiction.

"Vessel" as defined by section 101(28) of CERCLA, means every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water; and, as defined by section 311(a)(3) of the CWA, means every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water other than a public vessel.

"Volunteer" means any individual accepted to perform services by the lead agency which has authority to accept volunteer services (examples: see 16 U.S.C. 742f(c)). A volunteer is subject to the provisions of the authorizing statute and the NCP.

§ 300.6 Use of number and gender.

As used in this regulation, words in the singular also include the plural and words in the masculine gender also include the feminine and vice versa, as the case may require.

§ 300.7 Computation of time.

In computing any period of time prescribed or allowed in these rules of practice, except as otherwise provided, the day of the event from which the designated period begins to run shall not be included. Saturdays, Sundays, and federal legal holidays shall be included. When a stated time expires on a Saturday, Sunday, or legal holiday, the stated time period shall be extended to include the next business day.

SUBPART B -- RESPONSIBILITY AND ORGANIZATION FOR RESPONSE

§ 300.100 Duties of President delegated to federal agencies.

In Executive Order 11735 and Executive Order 12580, the President delegated certain functions and responsibilities vested in him by the CWA and CERCLA, respectively.

§ 300.105 General organization concepts.

(a) Federal agencies should:

(1) Plan for emergencies and develop procedures for addressing oil discharges and releases of hazardous substances, pollutants, or contaminants;

(2) Coordinate their planning, preparedness, and response activities with one another;

(3) Coordinate their planning, preparedness, and response activities with affected states and local governments and private entities; and

(4) Make available those facilities or resources that may be useful in a response situation, consistent with agency authorities and capabilities.

(b) Three fundamental kinds of activities are performed pursuant to the NCP:

(1) Preparedness planning and coordination for response to a discharge of oil or release of a hazardous substance, pollutant, or contaminant;

(2) Notification and communications; and

(3) Response operations at the scene of a discharge or release.

(c) The organizational elements created to perform these activities are:

(1) The National Response Team (NRT), responsible for national response and preparedness planning, for coordinating

regional planning, and for providing policy guidance and support to the Regional Response Teams. NRT membership consists of representatives from the agencies specified in § 300.175.

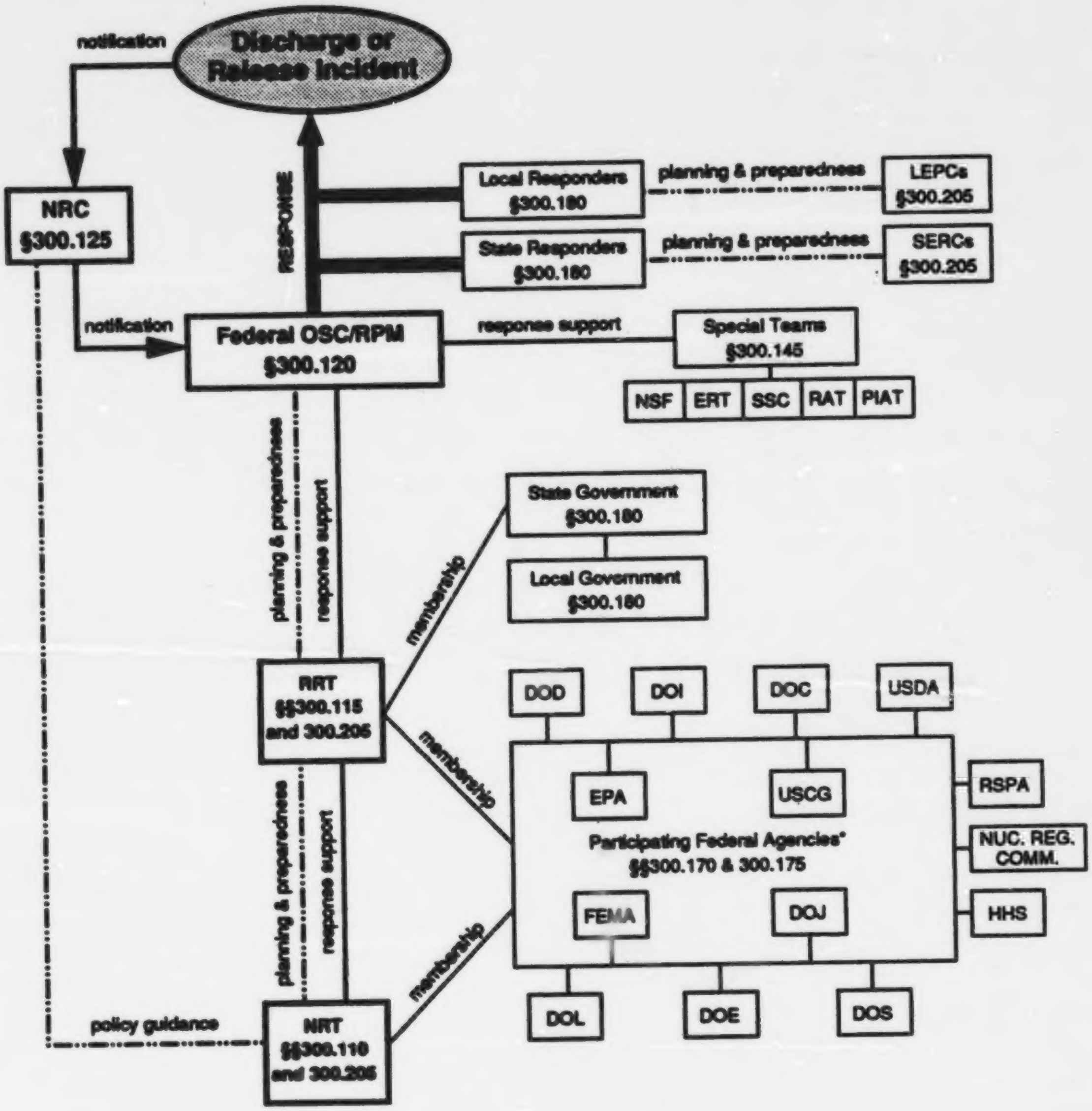
(2) Regional Response Teams (RRTs), responsible for regional planning and preparedness activities before response actions, and for providing advice and support to the on-scene coordinator (OSC) or remedial project manager (RPM) when activated during a response. RRT membership consists of designated representatives from each federal agency participating in the NRT together with state and (as agreed upon by the states) local government representatives.

(3) The OSC and the RPM, primarily responsible for directing response efforts and coordinating all other efforts at the scene of a discharge or release. The other responsibilities of OSCs and RPMs are described in § 300.135.

(d)(1) The organizational concepts of the national response system are depicted in the following Figure 1:

Figure 1

National Response System Concepts



*The same federal agencies participate on both the National Response Team (NRT) and the Regional Response Team (RRT). Federal agencies on the RRT are represented by regional staff. Abbreviations used in this figure are explained in §300.4.

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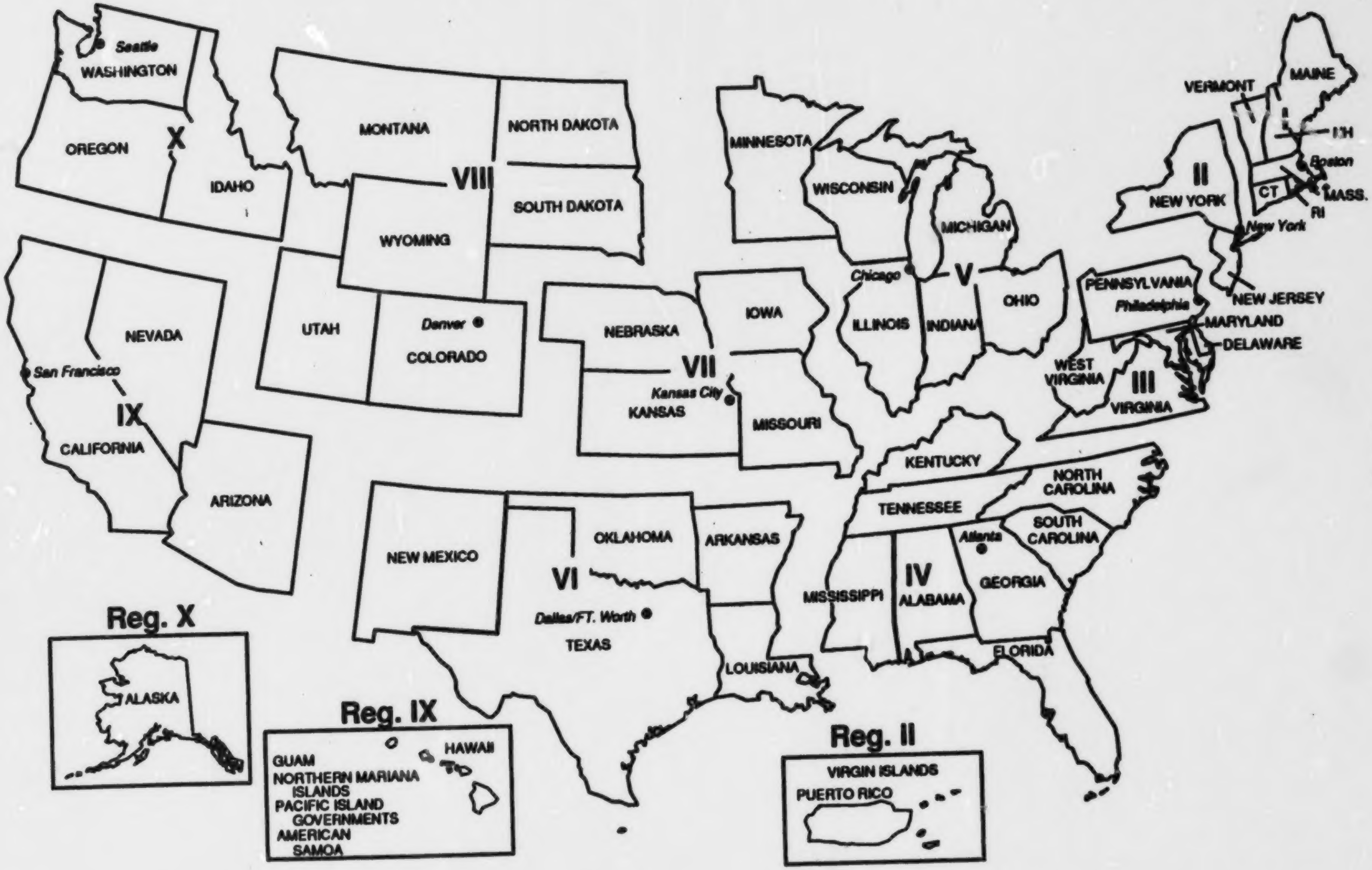
(2) The standard federal regional boundaries (which are also the geographic areas of responsibility for the Regional Response Teams) are shown in the following Figure 2:

Figure 2 -- Standard Regional Boundaries for Ten Regions



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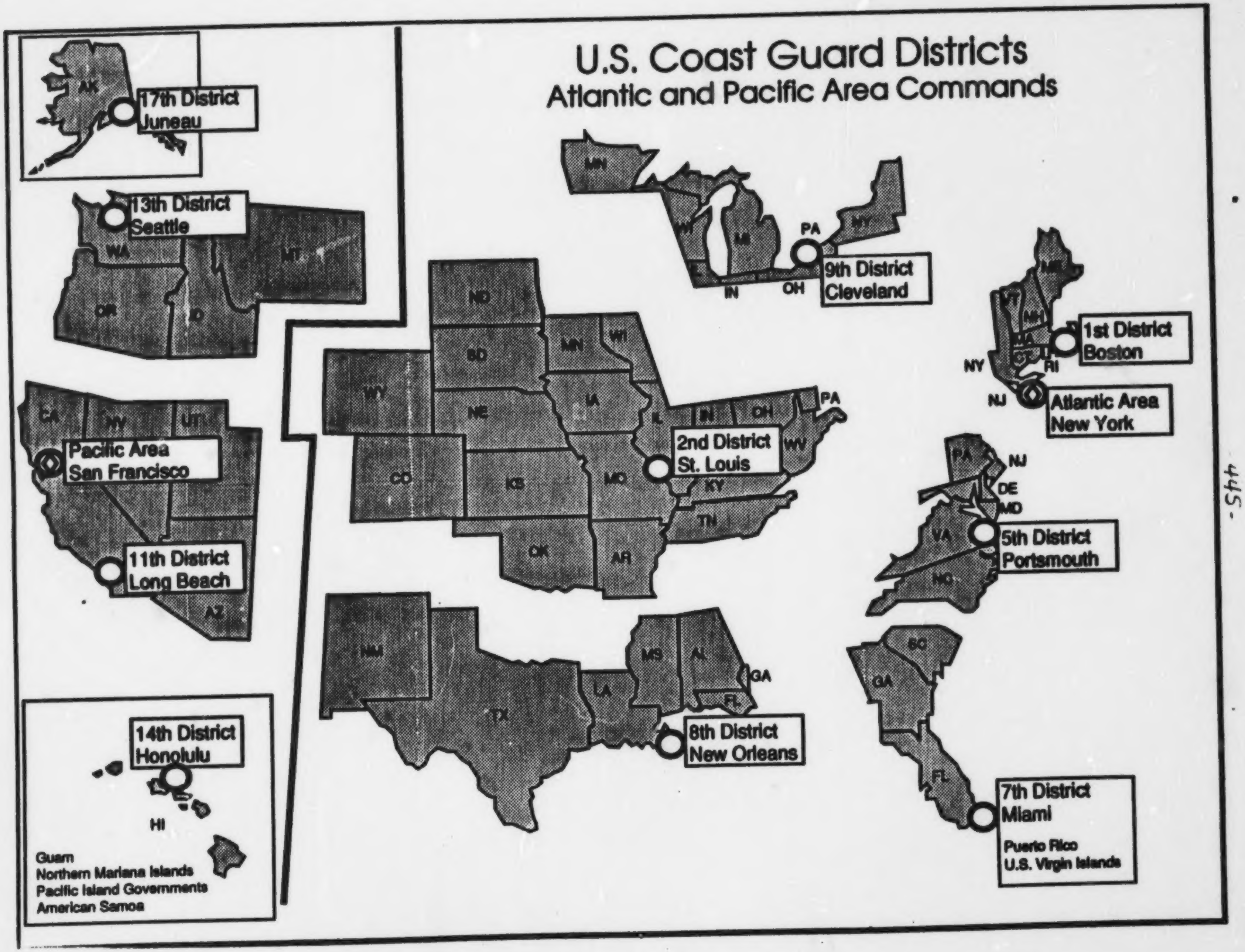
(3) The USCG District boundaries are shown in the following Figure 3:

U.S. Coast Guard Districts
Atlantic and Pacific Area Commands



§ 300.110 National Response Team.

National planning and coordination is accomplished through the National Response Team (NRT).

(a) The NRT consists of representatives from the agencies named in § 300.175. Each agency shall designate a member to the team and sufficient alternates to ensure representation, as agency resources permit. The NRT will consider requests for membership on the NRT from other agencies. Other agencies may request membership by forwarding such requests to the chair of the NRT.

(b) The chair of the NRT shall be the representative of EPA and the vice chair shall be the representative of the USCG, with the exception of periods of activation because of response action. During activation, the chair shall be the member agency providing the OSC/RPM. The vice chair shall maintain records of NRT activities along with national, regional, and OSC plans for response actions.

(c) While the NRT desires to achieve a consensus on all matters brought before it, certain matters may prove unresolvable by this means. In such cases, each agency serving as a participating agency on the NRT may be accorded one vote in NRT proceedings.

(d) The NRT may establish such bylaws and committees as it deems appropriate to further the purposes for which it is established.

(e) The NRT shall evaluate methods of responding to discharges or releases, shall recommend any changes needed in the response organization, and may recommend revisions to the NCP.

(f) The NRT shall provide policy and program direction to the RRTs.

(g) The NRT may consider and make recommendations to appropriate agencies on the training, equipping, and protection of response teams and necessary research, development, demonstration, and evaluation to improve response capabilities.

(h) Direct planning and preparedness responsibilities of the NRT include:

(1) Maintaining national preparedness to respond to a major discharge of oil or release of a hazardous substance, pollutant, or contaminant that is beyond regional capabilities;

(2) Publishing guidance documents for preparation and implementation of SARA Title III local emergency response plans;

(3) Monitoring incoming reports from all RRTs and activating for a response action, when necessary;

(4) Coordinating a national program to assist member agencies in preparedness planning and response, and enhancing coordination of member agency preparedness programs;

(5) Developing procedures to ensure the coordination of federal, state, and local governments, and private response to oil discharges and releases of hazardous substances, pollutants, or contaminants;

(6) Monitoring response-related research and development, testing, and evaluation activities of NRT agencies to enhance coordination and avoid duplication of effort;

(7) Developing recommendations for response training and for enhancing the coordination of available resources among agencies with training responsibilities under the NCP; and

(8) Reviewing regional responses to oil discharges and hazardous substance, pollutant, or contaminant releases, including an evaluation of equipment readiness and coordination among responsible public agencies and private organizations.

(i) The NRT will consider matters referred to it for advice or resolution by an RRT.

(j) The NRT should be activated as an emergency response team:

(1) When an oil discharge or hazardous substance release:

(i) Exceeds the response capability of the region in which it occurs;

(ii) Transects regional boundaries; or

(iii) Involves a significant threat to public health or welfare or the environment, substantial amounts of property, or substantial threats to natural resources; or

(2) If requested by any NRT member.

(k) When activated for a response action, the NRT shall meet at the call of the chair and may:

(1) Monitor and evaluate reports from the OSC/RPM and recommend to the OSC/RPM, through the RRT, actions to combat the discharge or release;

(2) Request other federal, state, and local governments, or private agencies, to provide resources under their existing authorities to combat a discharge or release, or to monitor response operations; and

(3) Coordinate the supply of equipment, personnel, or technical advice to the affected region from other regions or districts.

§ 300.115 Regional Response Teams.

(a) Regional planning and coordination of preparedness and response actions is accomplished through the RRT. The RRT agency membership parallels that of the NRT, as described in § 300.110, but also includes state and local representation. The RRT provides the appropriate regional mechanism for development and coordination of preparedness activities before a response action is taken and for coordination of assistance and advice to the OSC/RPM during such response actions.

(b) The two principal components of the RRT mechanism are a standing team, which consists of designated representatives from each participating federal agency, state governments, and local governments (as agreed upon by the states); and incident-specific teams formed from the standing team when the RRT is activated for a response. On incident-specific teams, participation by the RRT member agencies will relate to the technical nature of the incident and its geographic location.

(1) The standing team's jurisdiction corresponds to the standard federal regions, except for Alaska, Oceania in the Pacific, and the Caribbean area, each of which has a separate standing RRT. The role of the standing RRT includes communications systems and procedures, planning, coordination, training, evaluation, preparedness, and related matters on a regionwide basis.

(2) The role of the incident-specific team is determined by the operational requirements of the response to a specific discharge or release. Appropriate levels of activation and/or notification of the incident-specific RRT, including participation by state and local governments, shall be determined by the designated RRT chair for the incident, based on the Regional Contingency Plan (RCP). The incident-specific RRT supports the designated OSC/RPM. The designated OSC/RPM directs response efforts and coordinates all other efforts at the scene of a discharge or release.

(c) The representatives of EPA and the USCG shall act as co-chairs of RRTs except when the RRT is activated. When the RRT is activated for response actions, the chair shall be the member agency providing the OSC/RPM.

(d) Each participating agency should designate one member and at least one alternate member to the RRT. Agencies whose regional subdivisions do not correspond to the standard federal regions may designate additional representatives to the standing RRT to ensure appropriate coverage of the standard federal region. Participating states may also designate one member and at least one alternate member to the RRT. Indian tribal governments may arrange for representation with the RRT appropriate to their geographical location. All agencies and states may also provide additional representatives as observers to meetings of the RRT.

(e) RRT members should designate representatives and alternates from their agencies as resource personnel for RRT activities, including RRT work planning, and membership on incident-specific teams in support of the OSCs/RPMs.

(f) Federal RRT members or their representatives should provide OSCs/RPMs with assistance from their respective federal agencies commensurate with agency responsibilities, resources, and capabilities within the region. During a response action, the members of the RRT should seek to make available the resources of their agencies to the OSC/RPM as specified in the RCP and OSC contingency plan.

(g) RRT members should designate appropriately qualified representatives from their agencies to work with OSCs in developing and maintaining OSC contingency plans, described in § 300.210, that provide for use of agency resources in responding to discharges and releases.

(h) Affected states are encouraged to participate actively in all RRT activities. Each state governor is requested to assign an office or agency to represent the state on the appropriate RRT; to designate representatives to work with the RRT and OSCs in developing RCPs and OSC contingency plans; to plan for, make available, and coordinate state resources; and to serve as the contact point for coordination of response with local government agencies, whether or not represented on the RRT. The state's RRT representative should keep the State Emergency Response Commission (SERC), described in § 300.205(c), apprised of RRT activities and coordinate RRT activities with the SERC. Local governments and Indian tribes are invited to participate in activities on the appropriate RRT as provided by state law or as arranged by the state's representative.

(i) The standing RRT shall recommend changes in the regional response organization as needed, revise the RCP as needed, evaluate the preparedness of the participating agencies and the effectiveness of OSC contingency plans for the federal response to discharges and releases, and provide technical assistance for preparedness to the response community. The RRT should:

(1) Review and comment, to the extent practicable, on local emergency response plans or other issues related to the preparation, implementation, or exercise of such plans upon request of a local emergency planning committee;

(2) Evaluate regional and local responses to discharges or releases on a continuing basis, considering available legal remedies, equipment readiness, and coordination among responsible public agencies and private organizations, and recommend improvements;

(3) Recommend revisions of the NCP to the NRT, based on observations of response operations;

(4) Review OSC actions to ensure that RCPs and OSC contingency plans are effective;

(5) Encourage the state and local response community to improve its preparedness for response;

(6) Conduct advance planning for use of dispersants, surface collection agents, burning agents, biological additives, or other chemical agents in accordance with Subpart J of this Part;

(7) Be prepared to provide response resources to major discharges or releases outside the region;

(8) Conduct or participate in training and exercises as necessary to encourage preparedness activities of the response community within the region;

(9) Meet at least semiannually to review response actions carried out during the preceding period and consider changes in RCPs and OSC contingency plans; and

(10) Provide letter reports on RRT activities to the NRT twice a year, no later than January 31 and July 31. At a minimum, reports should summarize recent activities, organizational changes, operational concerns, and efforts to improve state and local coordination.

(j)(1) The RRT may be activated by the chair as an incident-specific response team when a discharge or release:

(i) Exceeds the response capability available to the OSC/RPM in the place where it occurs;

(ii) Transects state boundaries; or

(iii) May pose a substantial threat to the public health or welfare or the environment, or to regionally significant amounts of property. RCPs shall specify detailed criteria for activation of RRTs.

(2) The RRT will be activated during any discharge or release upon a request from the OSC/RPM, or from any RRT representative, to the chair of the RRT. Requests for RRT activation shall later be confirmed in writing. Each representative, or an appropriate alternate, should be notified immediately when the RRT is activated.

(3) During prolonged removal or remedial action, the RRT may not need to be activated or may need to be activated only in a limited sense, or may need to have available only those member agencies of the RRT who are directly affected or who can provide direct response assistance.

(4) When the RRT is activated for a discharge or release, agency representatives shall meet at the call of the chair and may:

(i) Monitor and evaluate reports from the OSC/RPM, advise the OSC/RPM on the duration and extent of response, and recommend to the OSC/RPM specific actions to respond to the discharge or release;

(ii) Request other federal, state, or local governments, or private agencies, to provide resources under their existing authorities to respond to a discharge or release or to monitor response operations;

(iii) Help the OSC/RPM prepare information releases for the public and for communication with the NRT;

(iv) If the circumstances warrant, make recommendations to the regional or district head of the agency providing the OSC/RPM that a different OSC/RPM should be designated; and

(v) Submit pollution reports to the NRC as significant developments occur.

(5) At the regional level, a Regional Response Center (RRC) may provide facilities and personnel for communications, information storage, and other requirements for coordinating response. The location of each RRC should be provided in the RCP.

(6) When the RRT is activated, affected states may participate in all RRT deliberations. State government representatives participating in the RRT have the same status as any federal member of the RRT.

(7) The RRT can be deactivated when the incident-specific

RRT chair determines that the OSC/RPM no longer requires RRT assistance.

(8) Notification of the RRT may be appropriate when full activation is not necessary, with systematic communication of pollution reports or other means to keep RRT members informed as to actions of potential concern to a particular agency, or to assist in later RRT evaluation of regionwide response effectiveness.

(k) Whenever there is insufficient national policy guidance on a matter before the RRT, a technical matter requiring solution, or a question concerning interpretation of the NCP, or there is a disagreement on discretionary actions among RRT members that cannot be resolved at the regional level, it may be referred to the NRT, described in § 300.110, for advice.

§ 300.120 On-scene coordinators and remedial project managers: general responsibilities.

(a) The OSC/RPM directs response efforts and coordinates all other efforts at the scene of a discharge or release. As part of the planning and preparedness for response, OSCs shall be predesignated by the regional or district head of the lead agency. EPA and the USCG shall predesignate OSCs for all areas in each region, except as provided in paragraphs (b) and (c) of this section. RPMs shall be assigned by the lead agency to manage remedial or other response actions at NPL sites, except as provided in paragraphs (b) and (c) of this section.

(1) The USCG shall provide OSCs for oil discharges, including discharges from facilities and vessels under the jurisdiction of another federal agency, within or threatening the coastal zone. The USCG shall also provide OSCs for the removal of releases of hazardous substances, pollutants, or contaminants into or threatening the coastal zone, except as provided in paragraph (b) of this section. The USCG shall not provide predesignated OSCs for discharges or releases from hazardous waste management facilities or in similarly chronic incidents. The USCG shall provide an initial response to discharges or releases from hazardous waste management facilities within the coastal zone in accordance with DOT/EPA Instrument of Redelegation (May 27, 1988) except as provided by paragraph (b) of this section. The USCG OSC shall contact the cognizant RPM as soon as it is evident that a removal may require a follow-up remedial action, to ensure that the required planning can be initiated and an orderly transition to an EPA or state lead can occur.

(2) EPA shall provide OSCs for discharges or releases into or threatening the inland zone and shall provide RPMs for federally funded remedial actions, except in the case of state-lead federally funded response and as provided in paragraph

(b) of this section. EPA will also assume all remedial actions at NPL sites in the coastal zone, even where removals are initiated by the USCG, except as provided in paragraph (b) of this section.

(b) For releases of hazardous substances, pollutants, or contaminants, when the release is on, or the sole source of the release is from, any facility or vessel, including vessels bareboat chartered and operated, under the jurisdiction, custody, or control of DOD, DOE, or other federal agency:

(1) In the case of DOD or DOE, DOD or DOE shall provide OSCs/RPMs responsible for taking all response actions; and

(2) In the case of a federal agency other than EPA, DOD, or DOE, such agency shall provide OSCs for all removal actions that are not emergencies and shall provide RPMs for all remedial actions.

(c) DOD will be the removal response authority with respect to incidents involving DOD military weapons and munitions or weapons and munitions under the jurisdiction, custody or control of DOD.

(d) The OSC is responsible for developing any OSC contingency plans for the federal response in the area of the OSC's responsibility. The planning shall, as appropriate, be accomplished in cooperation with the RRT, described in § 300.115, and designated state and local representatives. The OSC coordinates, directs and reviews the work of other agencies, responsible parties and contractors to assure compliance with the NCP, decision document, consent decree, administrative order and lead agency-approved plans applicable to the response.

(e) The RPM is the prime contact for remedial or other response actions being taken (or needed) at sites on the proposed or promulgated NPL, and for sites not on the NPL but under the jurisdiction, custody, or control of a federal agency. The RPM's responsibilities include:

(1) Fund-financed response: The RPM coordinates, directs, and reviews the work of EPA, states and local governments, the U.S. Army Corps of Engineers, and all other agencies and contractors to assure compliance with the NCP. Based upon the reports of these parties, the RPM recommends action for decisions by lead agency officials. The RPM's period of responsibility begins prior to initiation of the remedial investigation/feasibility study (RI/FS), described in § 300.430, and continues through design, remedial action, deletion of the site from the NPL, and the CERCLA cost recovery activity. When a removal and remedial action occur at the same site, the OSC and RPM should coordinate to ensure an orderly transition of responsibility.

(2) Federal-lead non-Fund-financed response: The RPM coordinates, directs, and reviews the work of other agencies, responsible parties and contractors to assure compliance with the NCP, ROD, consent decree, administrative order and lead agency-approved plans applicable to the response. Based upon the reports of these parties, the RPM shall recommend action for decisions by lead agency officials. The RPM's period of responsibility begins prior to initiation of the RI/FS, described in § 300.430, and continues through design and remedial action, and the CERCLA cost recovery activity. The OSC and RPM shall ensure orderly transition of responsibilities from one to the other.

(3) The RPM shall participate in all decision-making processes necessary to ensure compliance with the NCP, including, as appropriate, agreements between EPA or other federal agencies and the state. The RPM may also review responses where EPA has preauthorized a person to file a claim for reimbursement to determine that the response was consistent with the terms of such preauthorization in cases where claims are filed for reimbursement.

(f)(1) Where a support agency has been identified through a cooperative agreement, SMOA, or other agreement, that agency may designate a support agency coordinator (SAC) to provide assistance, as requested, by the OSC/RPM. The SAC is the prime representative of the support agency for response actions.

(2) The SAC's responsibilities may include:

(i) Providing and reviewing data and documents as requested by the OSC/RPM during the planning, design, and cleanup activities of the response action; and

(ii) Providing other assistance as requested.

(g)(1) The lead agency should provide appropriate training for its OSCs, RPMs, and other response personnel to carry out their responsibilities under the NCP.

(2) OSCs/RPMs should ensure that persons designated to act as their on-scene representatives are adequately trained and prepared to carry out actions under the NCP, to the extent practicable.

§ 300.125 Notification and communications.

(a) The National Response Center (NRC), located at USCG Headquarters, is the national communications center, continuously manned for handling activities related to response actions. The NRC acts as the single point of contact for all pollution incident reporting, and as the NRT communications center. Notice of discharges must be made telephonically through a toll free number or a special local number (Telecommunication Device for the Deaf (TDD) and collect calls accepted). (Notification details appear in §§ 300.300 and 300.405.) The NRC receives and immediately relays telephone notices of discharges or releases to the appropriate predesignated federal OSC. The telephone report is distributed to any interested NRT member agency or federal entity that has established a written agreement or understanding with the NRC. The NRC evaluates incoming information and immediately advises FEMA of a potential major disaster or evacuations situation.

(b) The Commandant, USCG, in conjunction with other NRT agencies, shall provide the necessary personnel, communications, plotting facilities, and equipment for the NRC.

(c) Notice of an oil discharge or release of a hazardous substance in an amount equal to or greater than the reportable quantity must be made immediately in accordance with 33 CFR Part 153, Subpart B, and 40 CFR Part 302, respectively. Notification shall be made to the NRC Duty Officer, HQ USCG, Washington, DC, telephone (800) 424-8802 or (202) 267-2675. All notices of discharges or releases received at the NRC will be relayed immediately by telephone to the OSC.

§ 300.130 Determinations to initiate response and special conditions.

(a) In accordance with CWA and CERCLA, the Administrator of EPA or the Secretary of the Department in which the USCG is operating, as appropriate, is authorized to act for the United States to take response measures deemed necessary to protect the public health or welfare or environment from discharges of oil or releases of hazardous substances, pollutants, or contaminants except with respect to such releases on or from vessels or facilities under the jurisdiction, custody or control of other federal agencies.

(b) The Administrator of EPA or the Secretary of the Department in which the USCG is operating, as appropriate, is authorized to initiate appropriate response activities when the Administrator or Secretary determines that:

(1) Any oil is discharged from any vessel or offshore or onshore facility into or upon the navigable waters of the United States, adjoining shorelines, or into or upon the waters of the contiguous zone, or in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or which may affect natural resources belonging to, appertaining to, or under exclusive management authority of the United States;

(2) Any hazardous substance is released or there is a threat of such a release into the environment, or there is a release or threat of release into the environment of any pollutant or contaminant which may present an imminent and substantial danger to the public health or welfare; or

(3) A marine disaster in or upon the navigable waters of the United States has created a substantial threat of a pollution hazard to the public health or welfare because of a discharge or release, or an imminent discharge or release, from a vessel of large quantities of oil or hazardous substances designated pursuant to section 311(b)(2)(A) of the CWA.

(c) Whenever there is such a marine disaster, the Administrator of EPA or Secretary of the Department in which the USCG is operating may:

(1) Coordinate and direct all public and private efforts to abate the threat; and

(2) Summarily remove and, if necessary, destroy the vessel by whatever means are available without regard to any provisions of law governing the employment of personnel or the expenditure of appropriated funds.

(d) In addition to any actions taken by a state or local government, the Administrator of EPA or the Secretary of the Department in which the USCG is operating may request the U.S. Attorney General to secure the relief necessary to abate a threat if the Administrator or Secretary determines:

(1) That there is an imminent and substantial threat to the public health or welfare or the environment because of discharge of oil from any offshore or onshore facility into or upon the navigable waters of the United States; or

(2) That there may be an imminent and substantial endangerment to the public health or welfare or the environment because of a release of a hazardous substance from a facility.

(e) Response actions to remove discharges originating from operations conducted subject to the Outer Continental Shelf Lands Act shall be in accordance with the NCP.

(f) Where appropriate, when a discharge or release involves radioactive materials, the lead or support federal agency shall act consistent with the notification and assistance procedures described in the appropriate Federal Radiological Plan. For the purpose of the NCP, the Federal Radiological Emergency Response Plan (FRERP) (50 FR 46542, November 8, 1985) is the appropriate plan.

(g) Removal actions involving nuclear weapons should be conducted in accordance with the joint Department of Defense, Department of Energy, and Federal Emergency Management Agency Agreement for Response to Nuclear Incidents and Nuclear Weapons Significant Incidents (January 8, 1981).

(h) If the situation is beyond the capability of state and local governments and the statutory authority of federal agencies, the President may, under the Disaster Relief Act of 1974, act upon a request by the governor and declare a major disaster or emergency and appoint a Federal Coordinating Officer (FCO) to coordinate all federal disaster assistance activities. In such cases, the OSC/RPM would continue to carry out OSC/RPM responsibilities under the NCP, but would coordinate those activities with the FCO to ensure consistency with other federal disaster assistance activities.

§ 300.135 Response operations.

(a) The OSC/RPM, consistent with §§ 300.120 and 300.125, shall direct response efforts and coordinate all other efforts at the scene of a discharge or release. As part of the planning and preparation for response, the OSCs/RPMs shall be predesignated by the regional or district head of the lead agency.

(b) The first federal official affiliated with an NRT member agency to arrive at the scene of a discharge or release should coordinate activities under the NCP and is authorized to initiate, in consultation with the OSC, any necessary actions normally carried out by the OSC until the arrival of the predesignated OSC. This official may initiate federal Fund-financed actions only as authorized by the OSC or, if the OSC is unavailable, the authorized representative of the lead agency.

(c) The OSC/RPM shall, to the extent practicable, collect pertinent facts about the discharge or release, such as its source and cause; the identification of potentially responsible parties; the nature, amount, and location of discharged or released materials; the probable direction and time of travel of discharged or released materials; the pathways to human and environmental exposure; the potential impact on human health, welfare, and safety and the environment; the potential impact on natural resources and property which may be affected; priorities for protecting human health and welfare and the environment; and appropriate cost documentation.

(d) The OSC's/RPM's efforts shall be coordinated with other appropriate federal, state, local, and private response agencies. OSCs/RPMs may designate capable persons from federal, state, or local agencies to act as their on-scene representatives. State and local governments, however, are not authorized to take actions under Subparts D and E of the NCP that involve expenditures of CWA section 311(k) or CERCLA funds unless an appropriate contract or cooperative agreement has been established.

(e) The OSC/RPM should consult regularly with the RRT in carrying out the NCP and keep the RRT informed of activities under the NCP.

(f) The OSC/RPM shall advise the support agency as promptly as possible of reported releases.

(g) The OSC/RPM shall immediately notify FEMA of situations potentially requiring evacuation, temporary housing, or permanent relocation. In addition, the OSC/RPM shall evaluate incoming information and immediately advise FEMA of potential major disaster situations.

(h) In those instances where a possible public health emergency exists, the OSC/RPM should notify the HHS representative to the RRT. Throughout response actions, the OSC/RPM may call upon the HHS representative for assistance in determining public health threats and call upon the Occupational Safety and Health Administration (OSHA) and HHS for advice on worker health and safety problems.

(i) All federal agencies should plan for emergencies and develop procedures for dealing with oil discharges and releases of hazardous substances, pollutants, or contaminants from vessels and facilities under their jurisdiction. All federal agencies, therefore, are responsible for designating the office that coordinates response to such incidents in accordance with the NCP and applicable federal regulations and guidelines.

(j) The OSC/RPM shall promptly notify the trustees for natural resources of discharges or releases that are injuring or may injure natural resources under their jurisdiction. The OSC or RPM shall seek to coordinate all response activities with the natural resource trustees.

(k) Where the OSC/RPM becomes aware that a discharge or release may adversely affect any endangered or threatened species, or result in destruction or adverse modification of the habitat of such species, the OSC/RPM should consult with the DOI or DOC (NOAA).

(l) The OSC/RPM is responsible for addressing worker health and safety concerns at a response scene, in accordance with § 300.150.

(m) The OSC shall submit pollution reports to the RRT and other appropriate agencies as significant developments occur during response actions, through communications networks or procedures agreed to by the RRT and covered in the RCP.

(n) OSCs/RPMs should ensure that all appropriate public and private interests are kept informed and that their concerns are considered throughout a response, to the extent practicable, consistent with the requirements of § 300.155 of this Part.

§ 300.140 Multi-regional responses.

(a) If a discharge or release moves from the area covered by one RCP or OSC contingency plan into another area, the authority for response actions should likewise shift. If a discharge or release affects areas covered by two or more RCPs, the response mechanisms of both may be activated. In this case, response actions of all regions concerned shall be fully coordinated as detailed in the RCPs.

(b) There shall be only one OSC and/or RPM at any time during the course of a response operation. Should a discharge or release affect two or more areas, EPA, the USCG, DOD, DOE, or other lead agency, as appropriate, shall give prime consideration to the area vulnerable to the greatest threat, in determining which agency should provide the OSC and/or RPM. The RRT shall designate the OSC and/or RPM if the RRT member agencies who have response authority within the affected areas are unable to agree on the designation. The NRT shall designate the OSC and/or RPM if members of one RRT or two adjacent RRTs are unable to agree on the designation.

(c) Where the USCG has initially provided the OSC for response to a release from hazardous waste management facilities located in the coastal zone, responsibility for response action shall shift to EPA or another federal agency, as appropriate.

§ 300.145 Special teams and other assistance available to OSCs/RPMs.

(a) Strike Teams, collectively known as the National Strike Force (NSF), are established by the USCG on the Pacific coast and Gulf coast (covering the Atlantic and Gulf coast regions), to provide assistance to the OSC/RPM.

(1) Strike Teams can provide communications support, advice, and assistance for oil and hazardous substances removal. These teams also have knowledge of shipboard damage control, are equipped with specialized containment and removal equipment, and have rapid transportation available. When possible, the Strike Teams will provide training for emergency task forces to support OSCs/RPMs and assist in the development of RCPs and OSC contingency plans.

(2) The OSC/RPM may request assistance from the Strike Teams. Requests for a team may be made directly to the Commanding

Officer of the appropriate team, the USCG member of the RRT, the appropriate USCG Area Commander, or the Commandant of the USCG through the NRC.

(b) Each USCG OSC manages emergency task forces trained to evaluate, monitor, and supervise pollution responses. Additionally, they have limited "initial aid" response capability to deploy equipment prior to the arrival of a cleanup contractor or other response personnel.

(c)(1) The Environmental Response Team (ERT) is established by EPA in accordance with its disaster and emergency responsibilities. The ERT has expertise in treatment technology, biology, chemistry, hydrology, geology, and engineering.

(2) The ERT can provide access to special decontamination equipment for chemical releases and advice to the OSC/RPM in hazard evaluation; risk assessment; multimedia sampling and analysis program; on-site safety, including development and implementation plans; cleanup techniques and priorities; water supply decontamination and protection; application of dispersants; environmental assessment; degree of cleanup required; and disposal of contaminated material.

(3) The ERT also provides both introductory and intermediate level training courses to prepare response personnel.

(4) OSC/RPM or RRT requests for ERT support should be made to the EPA representative on the RRT; EPA Headquarters, Director, Emergency Response Division; or the appropriate EPA regional emergency coordinator.

(d) Scientific support coordinators (SSCs) are available, at the request of OSCs/RPMs, to assist with actual or potential responses to discharges of oil or releases of hazardous substances, pollutants, or contaminants. The SSC will also provide scientific support for the development of RCPs and OSC contingency plans. Generally, SSCs are provided by NOAA in coastal and marine areas, and by EPA in inland regions. In the case of NOAA, SSCs may be supported in the field by a team providing, as necessary, expertise in chemistry, trajectory modeling, natural resources at risk, and data management.

(1) During a response, the SSC serves under the direction of the OSC/RPM and is responsible for providing scientific support for operational decisions and for coordinating on-scene scientific activity. Depending on the nature of the incident, the SSC can be expected to provide certain specialized scientific skills and to work with governmental agencies, universities, community representatives, and industry to compile information that would assist the OSC/RPM in assessing the hazards and potential effects of discharges and releases and in developing response strategies.

(2) If requested by the OSC/RPM, the SSC will serve as the principal liaison for scientific information and will facilitate communications to and from the scientific community on response issues. The SSC, in this role, will strive for a consensus on scientific issues surrounding the response but will also ensure that any differing opinions within the community are communicated to the OSC/RPM.

(3) The SSC will assist the OSC/RPM in responding to requests for assistance from state and federal agencies regarding scientific studies and environmental assessments. Details on access to scientific support shall be included in the RCPs.

(e) For marine salvage operations, OSCs/RPMs with responsibility for monitoring, evaluating, or supervising these activities should request technical assistance from DOD, the Strike Teams, or commercial salvors as necessary to ensure that proper actions are taken. Marine salvage operations generally fall into five categories: afloat salvage; offshore salvage; river and harbor clearance; cargo salvage; and rescue towing. Each category requires different knowledge and specialized types of equipment. The complexity of such operations may be further compounded by local environmental and geographic conditions. The nature of marine salvage and the conditions under which it occurs combine to make such operations imprecise, difficult, hazardous, and expensive. Thus, responsible parties or other persons attempting to perform such operations without adequate knowledge, equipment, and experience could aggravate, rather than relieve, the situation.

(f) Radiological Assistance Teams (RATs) have been established by EPA's Office of Radiation Programs (ORP) to provide response and support for incidents or sites containing radiological hazards. Expertise is available in radiation monitoring, radionuclide analysis, radiation health physics and risk assessment. Radiological Assistance Teams can provide on-site support including mobile monitoring laboratories for field analyses of samples and fixed laboratories for radiochemical sampling and analyses. Requests for support may be made 24 hours a day to the Radiological Response Coordinator in the EPA Office of Radiation Programs. Assistance is also available from the Department of Energy and other federal agencies.

(g) The USCG Public Information Assist Team (PIAT) is available to assist OSCs/RPMs and regional or district offices to meet the demands for public information and participation. Its use is encouraged any time the OSC/RPM requires outside public affairs support. Requests for the PIAT may be made through the NRC.

§ 300.150 Worker health and safety.

(a) Response actions under the NCP will comply with the provisions for response action worker safety and health in 29 CFR 1910.120.

(b) In a response action taken by a responsible party, the responsible party must assure that an occupational safety and health program consistent with 29 CFR 1910.120 is made available for the protection of workers at the response site.

(c) In a response taken under the NCP by a lead agency, an occupational safety and health program should be made available for the protection of workers at the response site, consistent with, and to the extent required by, 29 CFR 1910.120. Contracts relating to a response action under the NCP should contain assurances that the contractor at the response site will comply with this program and with any applicable provisions of the OSH Act and state OSH laws.

(d) When a state, or political subdivision of a state, without an OSHA-approved state plan is the lead agency for response, the state or political subdivision must comply with standards in 40 CFR Part 311, promulgated by EPA pursuant to section 126(f) of SARA.

(e) Requirements, standards, and regulations of the Occupational Safety and Health Act of 1970 (29 U.S.C. 651 et seq.) (OSH Act) and of state laws with plans approved under section 18 of the OSH Act (state OSH laws), not directly referenced in subsections (a) through (d) of this section, must be complied with where applicable. Federal OSH Act requirements include, among other things, Construction Standards (29 CFR Part 1926), General Industry Standards (29 CFR Part 1910), and the general duty requirement of section 5(a)(1) of the OSH Act (29 U.S.C. 654(a)(1)). No action by the lead agency with respect to response activities under the NCP constitutes an exercise of statutory authority within the meaning of section 4(b)(1) of the OSH Act. All governmental agencies and private employers are directly responsible for the health and safety of their own employees.

§ 300.155 Public information and community relations.

(a) When an incident occurs, it is imperative to give the public prompt, accurate information on the nature of the incident and the actions underway to mitigate the damage. OSCs/RPMs and community relations personnel should ensure that all appropriate public and private interests are kept informed and that their concerns are considered throughout a response. They should coordinate with available public affairs/community relations resources to carry out this responsibility.

(b) An on-scene news office may be established to coordinate media relations and to issue official federal information on an incident. Whenever possible, it will be headed by a representative of the lead agency. The OSC/RPM determines the location of the on-scene news office, but every effort should be made to locate it near the scene of the incident. If a participating agency believes public interest warrants the issuance of statements and an on-scene news office has not been established, the affected agency should recommend its establishment. All federal news releases or statements by participating agencies should be cleared through the OSC/RPM.

(c) The community relations requirements specified in §§ 300.415, 300.430, and 300.435 apply to removal, remedial, and enforcement actions and are intended to promote active communication between communities affected by discharges or releases and the lead agency responsible for response actions. Community Relations Plans (CRPs) are required by EPA for certain response actions. The OSC/RPM should ensure coordination with such plans which may be in effect at the scene of a discharge or release or which may need to be developed during follow-up activities.

§ 300.160 Documentation and cost recovery.

(a) For releases of a hazardous substance, pollutant, or contaminant, the following provisions apply:

(1) During all phases of response, the lead agency shall complete and maintain documentation to support all actions taken under the NCP and to form the basis for cost recovery. In general, documentation shall be sufficient to provide the source and circumstances of the release, the identity of responsible parties, the response action taken, accurate accounting of federal, state, or private party costs incurred for response actions, and impacts and potential impacts to the public health and welfare and the environment. Where applicable, documentation shall state when the NRC received notification of a release of a reportable quantity.

(2) The information and reports obtained by the lead agency for Fund-financed response actions shall, as appropriate, be transmitted to the chair of the RRT. Copies can then be forwarded to the NRT, members of the RRT, and others as appropriate. In addition, OSCs shall submit reports as required under § 300.165.

(3) The lead agency shall make available to the trustees of affected natural resources information and documentation that can assist the trustees in the determination of actual or potential natural resource injuries.

(b) For discharges of oil, documentation and cost recovery provisions are described in § 300.315.

(c) Response actions undertaken by the participating agencies shall be carried out under existing programs and authorities when available. Federal agencies are to make resources available, expend funds, or participate in response to discharges and releases under their existing authority. Interagency agreements may be signed when necessary to ensure that the federal resources will be available for a timely response to a discharge or release. The ultimate decision as to the appropriateness of expending funds rests with the agency that is held accountable for such expenditures. Further funding provisions for discharges of oil are described in § 300.335.

(d) The Administrator of EPA and the Administrator of the Agency for Toxic Substances and Disease Registry (ATSDR) shall assure that the costs of health assessment or health effect studies conducted under the authority of CERCLA section 104(i) are documented in accordance with standard EPA procedures for cost recovery. Documentation shall include information on the nature of the hazardous substances addressed by the research, information concerning the locations where these substances have been found, and any available information on response actions taken concerning these substances at the location.

§ 300.165 OSC reports.

(a) Within one year after completion of removal activities at a major discharge of oil, a major release of a hazardous substance, pollutant or contaminant, or when requested by the RRT, the OSC/RPM shall submit to the RRT a complete report on the removal operation and the actions taken. The OSC/RPM shall at the same time send a copy of the report to the Secretary of the NRT. The RRT shall review the OSC report and send to the NRT a copy of the OSC report with its comments or recommendations within 30 days after the RRT has received the OSC report.

(b) The OSC report shall record the situation as it developed, the actions taken, the resources committed, and the problems encountered.

(c) The format for the OSC report shall be as follows:

(1) Summary of Events -- a chronological narrative of all events, including:

(i) The location of the hazardous substance, pollutant, or contaminant release or oil discharge, including, for oil discharges, an indication of whether the discharge was in connection with activities regulated under the Outer Continental

Shelf Lands Act (OCSLA), the Trans-Alaska Pipeline Authorization Act, or the Deepwater Port Act;

(ii) The cause of the discharge or release;

(iii) The initial situation;

(iv) Efforts to obtain response by responsible parties;

(v) The organization of the response, including state participation;

(vi) The resources committed;

(vii) Content and time of notice to natural resource trustees relating injury or possible injury to natural resources;

(viii) Federal or state trustee damage assessment activities and efforts to replace or restore damaged natural resources;

(ix) Details of any threat abatement action taken under CERCLA or under section 311(c) or (d) of the CWA;

(x) Treatment/disposal/alternative technology approaches pursued and followed; and

(xi) Public information/community relations activities.

(2) Effectiveness of removal actions taken by:

(i) The responsible party(ies);

(ii) State and local forces;

(iii) Federal agencies and special teams; and

(iv) Contractors, private groups, and volunteers, if applicable.

(3) Difficulties Encountered -- A list of items that affected the response, with particular attention to issues of intergovernmental coordination.

(4) Recommendations -- OSC/RPM recommendations, including at a minimum:

(i) Means to prevent a recurrence of the discharge or release;

(ii) Improvement of response actions; and

(iii) Any recommended changes in the NCP, RCP, OSC contingency plan, and, as appropriate, plans developed under section 303 of SARA and other local emergency response plans.

§ 300.170 Federal agency participation.

Federal agencies listed in § 300.175 have duties established by statute, executive order, or Presidential directive which may apply to federal response actions following, or in prevention of, the discharge of oil or release of a hazardous substance, pollutant, or contaminant. Some of these agencies also have duties relating to the rehabilitation, restoration, or replacement of natural resources injured or lost as a result of such discharge or release as described in Subpart G of this Part. The NRT and RRT organizational structure, and the NCP, federal Regional Contingency plans (RCPs), and OSC contingency plans, described in § 300.210, provide for agencies to coordinate with each other in carrying out these duties.

(a) Federal agencies may be called upon by an OSC/RPM during response planning and implementation to provide assistance in their respective areas of expertise as described in § 300.175, consistent with the agencies' capabilities and authorities.

(b) In addition to their general responsibilities, federal agencies should:

(1) Make necessary information available to the Secretary of the NRT, RRTs, and OSCs/RPMs.

(2) Provide representatives to the NRT and RRTs and otherwise assist RRTs and OSCs, as necessary, in formulating RCPs and OSC contingency plans.

(3) Inform the NRT and RRTs, consistent with national security considerations, of changes in the availability of resources that would affect the operations implemented under the NCP.

(c) All federal agencies are responsible for reporting releases of hazardous substances from facilities or vessels under their jurisdiction or control in accordance with section 103 of CERCLA.

(d) All federal agencies are encouraged to report releases of pollutants or contaminants or discharges of oil from vessels under their jurisdiction or control to the NRC.

§ 300.175 Federal agencies: additional responsibilities and assistance.

(a) During preparedness planning or in an actual response, various federal agencies may be called upon to provide assistance in their respective areas of expertise as indicated in paragraph (b) of this section, consistent with agency legal authorities and capabilities.

(b) The federal agencies include:

(1) The United States Coast Guard (USCG), as provided in 14 U.S.C. 1-3, is an agency in the Department of Transportation (DOT), except when operating as an agency in the United States Navy in time of war. The USCG provides the NRT vice chair, co-chairs for the standing RRTs, and predesignated OSCs for the coastal zone as described in § 300.120(a)(1). The USCG maintains continuously manned facilities which can be used for command, control, and surveillance of oil discharges and hazardous substance releases occurring in the coastal zone. The USCG also offers expertise in domestic and international fields of port safety and security, maritime law enforcement, ship navigation and construction, and the manning, operation and safety of vessels and marine facilities. The USCG may enter into a contract or cooperative agreement with the appropriate state in order to implement a response action.

(2) The Environmental Protection Agency (EPA) chairs the NRT and co-chairs, with the USCG, the standing RRTs; provides predesignated OSCs for the inland zone and RPMs for remedial actions except as otherwise provided; and generally provides the SSC for responses in the inland zone. EPA provides expertise on environmental effects of oil discharges or releases of hazardous substances, pollutants, or contaminants, and environmental pollution control techniques. EPA also provides legal expertise on the interpretation of CERCLA and other environmental statutes. EPA may enter into a contract or cooperative agreement with the appropriate state in order to implement a response action.

(3) The Federal Emergency Management Agency (FEMA) provides guidance, policy and program advice, and technical assistance in hazardous materials and radiological emergency preparedness activities (planning, training, and exercising). In a response, FEMA provides advice and assistance to the lead agency on coordinating relocation assistance and mitigation efforts with other federal agencies, state and local governments, and the private sector. FEMA may enter into a contract or cooperative agreement with the appropriate state or political subdivision in order to implement relocation assistance in a response. In the event of a hazardous materials incident at a major disaster or emergency declared by the President, the lead agency shall

coordinate hazardous materials response with the Federal Coordinating Officer (FCO) appointed by the President.

(4) The Department of Defense (DOD) has responsibility to take all action necessary with respect to releases where either the release is on, or the sole source of the release is from, any facility or vessel under the jurisdiction, custody, or control of DOD. DOD may also, consistent with its operational requirements and upon request of the OSC, provide locally deployed United States Navy oil spill equipment and provide assistance to other federal agencies on request. The following two branches of DOD have particularly relevant expertise:

(i) The United States Army Corps of Engineers has specialized equipment and personnel for maintaining navigation channels, for removing navigation obstruction, for accomplishing structural repairs, and for performing maintenance to hydropower electric generating equipment. The Corps can also provide design services, perform construction, and provide contract writing and contract administrative services for other federal agencies.

(ii) The United States Navy (USN) is the federal agency most knowledgeable and experienced in ship salvage, shipboard damage control, and diving. The USN has an extensive array of specialized equipment and personnel available for use in these areas as well as specialized containment, collection, and removal equipment specifically designed for salvage-related and open sea pollution incidents.

(5) The Department of Energy (DOE) generally provides designated OSCs/RPMs that are responsible for taking all response actions with respect to releases where either the release is on, or the sole source of the release is from, any facility or vessel under its jurisdiction, custody or control, including vessels bareboat- chartered and operated. In addition, under the Federal Radiological Emergency Response Plan (FRERP), DOE provides advice and assistance to other OSCs/RPMs for emergency actions essential for the control of immediate radiological hazards. Incidents that qualify for DOE radiological advice and assistance are those believed to involve source, by-product, or special nuclear material or other ionizing radiation sources, including radium, and other naturally occurring radionuclides, as well as particle accelerators. Assistance is available through direct contact with the appropriate DOE Radiological Assistance Coordinating Office.

(6) The Department of Agriculture (USDA) has scientific and technical capability to measure, evaluate, and monitor, either on the ground or by use of aircraft, situations where natural resources including soil, water, wildlife, and vegetation have been impacted by fire, insects and diseases, floods, hazardous substances, and other natural or man-caused emergencies. The USDA may be contacted through Forest Service emergency staff officers

who are the designated members of the RRT. Agencies within USDA have relevant capabilities and expertise as follows:

(i) The Forest Service has responsibility for protection and management of national forests and national grasslands. The Forest Service has personnel, laboratory, and field capability to measure, evaluate, monitor, and control as needed, releases of pesticides and other hazardous substances on lands under its jurisdiction.

(ii) The Agriculture Research Service (ARS) administers an applied and developmental research program in animal and plant protection and production; the use and improvement of soil, water, and air; the processing, storage and distribution of farm products; and human nutrition. The ARS has the capabilities to provide regulation of, and evaluation and training for, employees exposed to biological, chemical, radiological, and industrial hazards. In emergency situations, the ARS can identify, control, and abate pollution in the areas of air, soil, wastes, pesticides, radiation, and toxic substances for ARS facilities.

(iii) The Soil Conservation Service (SCS) has personnel in nearly every county in the nation knowledgeable in soil, agronomy, engineering, and biology. These personnel can help to predict the effects of pollutants on soil and their movements over and through soils. Technical specialists can assist in identifying potential hazardous waste sites and provide review and advice on plans for remedial measures.

(iv) The Animal and Plant Health Inspection Service (APHIS) can respond in an emergency to regulate movement of diseased or infected organisms to prevent spread and contamination of nonaffected areas.

(v) The Food Safety and Inspection Service (FSIS) has responsibility to prevent meat and poultry products contaminated with harmful substances from entering human food channels. In emergencies, the FSIS works with other federal and state agencies to establish acceptability for slaughter of exposed or potentially exposed animals and their products. In addition they are charged with managing the Federal Radiological Emergency Response Program for the USDA.

(7) The Department of Commerce (DOC), through NOAA, provides scientific support for response and contingency planning in coastal and marine areas, including assessments of the hazards that may be involved, predictions of movement and dispersion of oil and hazardous substances through trajectory modeling, and information on the sensitivity of coastal environments to oil and hazardous substances; provides expertise on living marine resources and their habitats, including endangered species, marine mammals and national marine sanctuary ecosystems; provides

information on actual and predicted meteorological, hydrological, ice and oceanographic conditions for marine, coastal, and inland waters, and tide and circulation data for coastal and territorial waters and for the Great Lakes.

(8) The Department of Health and Human Services (HHS) is responsible for providing assistance on matters related to the assessment of health hazards at a response, and protection of both response workers and the public's health. HHS is delegated authorities under section 104(b) of CERCLA relating to a determination that illness, disease, or complaints thereof may be attributable to exposure to a hazardous substance, pollutant, or contaminant. HHS programs and services may be carried out through grants, contracts, or cooperative agreements. The basic research programs shall be coordinated with the Superfund research, demonstration, and development program conducted by EPA and DOD through the mechanisms provided for in CERCLA. Agencies within HHS have relevant responsibilities, capabilities, and expertise as follows:

(i) The Agency for Toxic Substances and Disease Registry (ATSDR), under section 104(i) of CERCLA, is required to: establish appropriate disease/exposure registries; provide medical care and testing of exposed individuals in cases of public health emergencies; develop, maintain, and provide information on health effects of toxic substances; maintain a list of areas restricted or closed because of toxic substances contamination; conduct research to determine relationships between exposure to toxic substances and illness; conduct health assessments at all NPL sites; conduct a health assessment in response to a petition or provide a written explanation why an assessment will not be conducted; together with EPA, identify the most hazardous substances related to CERCLA sites; together with EPA, develop guidelines for toxicological profiles for hazardous substances; develop a toxicological profile for all such substances; and develop educational materials related to health effects of toxic substances for health professionals.

(ii) The National Institutes for Environmental Health Sciences (NIEHS) has been given the responsibilities under section 311(a) of CERCLA, to conduct and support programs of basic research, development, and demonstration; and to establish short course and continuing education programs, and graduate or advanced training. In addition, section 126(g) of SARA authorizes NIEHS to administer grants for training and education of workers who are or may be engaged in activities related to hazardous waste removal, containment, or emergency responses.

(9) The Department of the Interior (DOI) may be contacted through Regional Environmental Officers (REO), who are the designated members of RRTs. Department land managers have jurisdiction over the national park system, national wildlife

refuges and fish hatcheries, the public lands, and certain water projects in western states. In addition, bureaus and offices have relevant expertise as follows:

(i) Fish and Wildlife Service: anadromous and certain other fishes and wildlife, including endangered and threatened species, migratory birds, and certain marine mammals; waters and wetlands; contaminants affecting habitat resources; and laboratory research facilities.

(ii) Geological Survey: geology, hydrology (ground water and surface water), and natural hazards.

(iii) Bureau of Land Management: minerals, soils, vegetation, wildlife, habitat, archaeology, and wilderness; and hazardous materials.

(iv) Minerals Management Service: manned facilities for Outer Continental Shelf (OCS) oversight.

(v) Bureau of Mines: analysis and identification of inorganic hazardous substances and technical expertise in metals and metallurgy relevant to site cleanup.

(vi) Office of Surface Mining: coal mine wastes and land reclamation.

(vii) National Park Service: biological and general natural resources expert personnel at park units.

(viii) Bureau of Reclamation: operation and maintenance of water projects in the West; engineering and hydrology; and reservoirs.

(ix) Bureau of Indian Affairs: coordination of activities affecting Indian lands; assistance in identifying Indian tribal government officials.

(x) Office of Territorial Affairs: assistance in implementing the NCP in American Samoa, Guam, the Pacific Island Governments, the Northern Mariana Islands and the Virgin Islands.

(10) The Department of Justice (DOJ) can provide expert advice on complicated legal questions arising from discharges or releases, and federal agency responses. In addition, the DOJ represents the federal government, including its agencies, in litigation relating to such discharges or releases.

(11) The Department of Labor (DOL), through the Occupational Safety and Health Administration (OSHA) and the states operating plans approved under section 18 of the Occupational Safety and Health Act of 1970 (OSH Act), has authority to conduct safety and

health inspections of hazardous waste sites to assure that employees are being protected and to determine if the site is in compliance with:

(i) Safety and health standards and regulations promulgated by OSHA (or the states) in accordance with section 126 of SARA and all other applicable standards; and

(ii) Regulations promulgated under the Occupational Safety and Health (OSH) Act and its general duty clause. OSHA inspections may be self-generated, consistent with its program operations and objectives, or may be conducted in response to requests from EPA or another lead agency. OSHA may also conduct inspections in response to accidents or employee complaints. OSHA may also conduct inspections at hazardous waste sites in those states with approved plans that choose not to exercise their jurisdiction to inspect such sites. On request, OSHA will provide advice and assistance to EPA and other NRT/RRT agencies as well as to the OSC/RPM regarding hazards to persons engaged in response activates. Technical assistance may include review of site safety plans and work practices, assistance with exposure monitoring, and help with other compliance questions. OSHA may also take any other action necessary to assure that employees are properly protected at such response activities. Any questions about occupational safety and health at these sites should be referred to the OSHA Regional Office.

(12) The Department of Transportation (DOT) provides response expertise pertaining to transportation of oil or hazardous substances by all modes of transportation. Through the Research and Special Programs Administration (RSPA), DOT offers expertise in the requirements for packaging, handling, and transporting regulated hazardous materials.

(13) The Department of State (DOS) will lead in the development of international joint contingency plans. It will also help to coordinate an international response when discharges or releases cross international boundaries or involve foreign flag vessels. Additionally, DOS will coordinate requests for assistance from foreign governments and U.S. proposals for conducting research at incidents that occur in waters of other countries.

(14) The Nuclear Regulatory Commission will respond, as appropriate, to releases of radioactive materials by its licensees, in accordance with the NRC Incident Response Plan (NUREG-0728) to monitor the actions of those licensees and assure that the public health and environment are protected and adequate recovery operations are instituted. The Nuclear Regulatory Commission will keep EPA informed of any significant actual or potential releases in accordance with procedural agreements. In addition, the Nuclear Regulatory Commission will provide advice to

the OSC/RPM when assistance is required in identifying the source and character of other hazardous substance releases where the Nuclear Regulatory Commission has licensing authority for activities utilizing radioactive materials.

(15) The National Response Center (NRC), located at USCG Headquarters, is the national communications center, continuously manned for handling activities related to response actions. The NRC acts as the single federal point of contact for all pollution incident reporting and as the NRT communications center. These response actions include: oil and hazardous substances, radiological, biological, etiological, surety materials, munitions, and fuels. Notice of discharges must be made telephonically through a toll free number or a special local number (Telecommunication Device for the Deaf (TDD) and collect calls accepted.) The telephone report is distributed to any interested NRT member agency or federal entity that has established a written agreement or understanding with the NRC. Each telephone notice is magnetically voice recorded and manually entered into an on-line computer database. The NRC tracks medium, major and potential major spills and provides incident summaries to all NRT members and other interested parties. The NRC evaluates incoming information and immediately advises FEMA of a potential major disaster or evacuations situation. The NRC provides facilities for the NRT to use in coordinating a national response action when required; assists in arrangements for regular as well as special NRT meetings and maintains information on the time and place of such meetings; and sends representatives to RRT meetings as appropriate. The NRC is available to assist all NRT agencies as needed.

§ 300.180 State and local participation in response.

(a) Each state governor is requested to designate one state office/representative to represent the state on the appropriate RRT. The state's office/representative may participate fully in all activities of the appropriate RRT. Each state governor is also requested to designate a lead state agency that will direct state-lead response operations. This agency is responsible for designating the OSC/RPM for state-lead response actions, designating SACs for federal-lead response actions, and coordinating/ communicating with any other state agencies, as appropriate. Local governments are invited to participate in activities on the appropriate RRT as may be provided by state law or arranged by the state's representative. Indian tribes wishing to participate should assign one person or office to represent the tribal government on the appropriate RRT.

(b) In addition to meeting the requirements for local emergency plans under SARA section 303, state and local government agencies are encouraged to include contingency planning for responses, consistent with the NCP and the RCP, in all emergency and disaster planning.

(c) For facilities not addressed under CERCLA, states are encouraged to undertake response actions themselves or to use their authorities to compel potentially responsible parties to undertake response actions.

(d) States are encouraged to enter into cooperative agreements pursuant to sections 104(c)(3) and (d) of CERCLA to enable them to undertake actions authorized under Subparts D and E of the NCP. Requirements for entering into these agreements are included in Subpart F of the NCP. A state agency that acts pursuant to such agreements is referred to as the lead agency. In the event there is no cooperative agreement, the lead agency can be designated in a SMOA or other agreement.

(e) Because state and local public safety organizations would normally be the first government representatives at the scene of a discharge or release, they are expected to initiate public safety measures that are necessary to protect public health and welfare and that are consistent with containment and cleanup requirements in the NCP, and are responsible for directing evacuations pursuant to existing state or local procedures.

§ 300.185 Nongovernmental participation.

(a) Industry groups, academic organizations, and others are encouraged to commit resources for response operations. Specific commitments should be listed in the RCP and OSC contingency plans.

(b) The technical and scientific information generated by the local community, along with information from federal, state and local governments, should be used to assist the OSC/RPM in devising response strategies where effective standard techniques are unavailable. The SSC may act as liaison between the OSC/RPM and such interested organizations.

(c) OSC contingency plans shall establish procedures to allow for well organized, worthwhile, and safe use of volunteers, including compliance with § 300.150 regarding worker health and safety. OSC contingency plans should provide for the direction of volunteers by the OSC/RPM or by other federal, state, or local officials knowledgeable in contingency operations and capable of providing leadership. OSC contingency plans also should identify specific areas in which volunteers can be used, such as beach surveillance, logistical support, and bird and wildlife treatment. Unless specifically requested by the OSC/RPM, volunteers generally should not be used for physical removal or remedial activities. If, in the judgment of the OSC/RPM, dangerous conditions exist, volunteers shall be restricted from on-scene operations.

(d) Nongovernmental participation must be in compliance with the requirements of Subpart H of this Part if any recovery of costs will be sought.

SUBPART C -- PLANNING AND PREPAREDNESS

§ 300.200 General.

This subpart summarizes emergency preparedness activities relating to discharges of oil and releases of hazardous substances, pollutants or contaminants; describes the federal, state, and local planning structure; provides for three levels of federal contingency plans; and cross-references state and local emergency preparedness activities under SARA Title III, also known as the "Emergency Planning and Community Right-to-Know Act of 1986" but referred to herein as "Title III." Regulations implementing Title III are codified at 40 CFR Subchapter J.

§ 300.205 Planning and coordination structure.

(a) National. As described in § 300.110, the NRT is responsible for national planning and coordination.

(b) Regional. As described in § 300.115, the RRTs are responsible for regional planning and coordination.

(c) State. As provided by sections 301 and 303 of SARA, the state emergency response commission (SERC) of each state, appointed by the Governor, is to designate emergency planning districts, appoint local emergency planning committees (LEPCs), supervise and coordinate their activities, and review local emergency response plans, described in § 300.215. The SERC also is to establish procedures for receiving and processing requests from the public for information generated by Title III reporting requirements and to designate an official to serve as coordinator for information.

(d) Local. As provided by sections 301 and 303 of SARA, emergency planning districts are designated by the SERC in order to facilitate the preparation and implementation of emergency plans. Each LEPC is to prepare a local emergency response plan for the emergency planning district and establish procedures for receiving and processing requests from the public for information generated by Title III reporting requirements. The LEPC is to appoint a chair and establish rules for the LEPC. The LEPC is to designate an official to serve as coordinator for information.

§ 300.210 Federal contingency plans.

There are three levels of federal contingency plans: the National Contingency Plan, regional contingency plans (RCPs), and OSC contingency plans. These plans are available for inspection at EPA regional offices or USCG district offices. Addresses and telephone numbers for these offices may be found in the United

States Government Manual, issued annually, or in local telephone directories.

(a) The National Contingency Plan. The purpose and objectives, authority, and scope of the NCP are described in §§ 300.1 through 300.3.

(b) Regional contingency plans. The RRTs, working with the states, shall develop federal RCPs for each standard federal region, Alaska, Oceania in the Pacific, and the Caribbean to coordinate timely, effective response by various federal agencies and other organizations to discharges of oil or releases of hazardous substances, pollutants, or contaminants. RCPs shall, as appropriate, include information on all useful facilities and resources in the region, from government, commercial, academic, and other sources. To the greatest extent possible, RCPs shall follow the format of the NCP and coordinate with state emergency response plans, OSC contingency plans, described in § 300.210(c), and Title III local emergency response plans, described in § 300.215. Such coordination should be accomplished by working with the SERCs in the region covered by the RCP. RCPs shall contain lines of demarcation between the inland and coastal zones, as mutually agreed upon by USCG and EPA.

(c)(1) OSC contingency plans. In order to provide for a coordinated, effective federal, state, and local response, each OSC, in consultation with the RRT, may develop an OSC contingency plan for response in the OSC area of responsibility. OSC contingency plans shall be developed in all areas in the coastal zone, because OSCs in the coastal zone have responsibility for discharges and releases offshore, which often exceed the jurisdiction and capabilities of other responders. Boundaries for OSC contingency plans shall coincide with those agreed upon among EPA, USCG, DOE, and DOD, subject to functions and authorities delegated in Executive Order 12580, to determine OSC areas of responsibility and should be clearly indicated in the RCP. Jurisdictional boundaries of local emergency planning districts established by states, described in § 300.205(c), shall, as appropriate, be considered in determining OSC areas of responsibility. OSC areas of responsibility may include several such local emergency planning districts, or parts of such districts. In developing the OSC contingency plan, OSCs shall coordinate with SERCs and LEPCs affected by the OSC area of responsibility.

(2) The OSC contingency plan shall provide for a well-coordinated response that is integrated and compatible with all appropriate response plans of state, local, and other nonfederal entities, and especially with Title III local emergency response plans, described in § 300.215, or in the OSC area of responsibility. The OSC contingency plan shall, as appropriate, identify the probable locations of discharges or

releases; the available resources to respond to multi-media incidents; where such resources can be obtained; waste disposal methods and facilities consistent with local and state plans developed under the Solid Waste Disposal Act, 42 U.S.C. 6901 et seq.; and a local structure for responding to discharges or releases.

§ 300.215 Title III local emergency response plans.

This section describes and cross-references the regulations that implement Title III of SARA. These regulations are codified at 40 CFR Part 355.

(a) Each LEPC is to prepare an emergency response plan in accordance with section 303 of SARA Title III and review the plan once a year, or more frequently as changed circumstances in the community or at any subject facility may require. Such Title III local emergency response plans should be closely coordinated with applicable federal OSC contingency plans and state emergency response plans.

(b) A facility, as defined in 40 CFR Part 355, is subject to emergency planning requirements if an extremely hazardous substance, as defined in 40 CFR Part 355, is present at the facility in an amount equal to or in excess of the threshold planning quantity established for such substance. In addition, for the purposes of emergency planning, a Governor or SERC may designate additional facilities that shall be subject to planning requirements, if such designation is made after public notice and opportunity for comment. EPA may revise the list of extremely hazardous substances and threshold planning quantities, taking into account the toxicity, reactivity, volatility, dispersability, combustibility, or flammability of a substance. Facility owners or operators are to name a facility representative who will participate in the planning process as a facility emergency coordinator.

(c) In accordance with section 303 of SARA, each local emergency response plan is to include, but is not limited to, the following:

(1) Identification of facilities subject to Title III emergency planning requirements that are within the emergency planning district; routes likely to be used for the transportation of substances on the list of extremely hazardous substances; and any additional facilities, such as hospitals or natural gas facilities, contributing or subjected to additional risk due to their proximity to facilities subject to Title III emergency planning requirements;

(2) Methods and procedures to be followed by facility owners and operators and local emergency and medical personnel to respond

to any release, as defined in 40 CFR Part 355, of extremely hazardous substances;

(3) Designation of a community emergency coordinator and a facility emergency coordinator for each facility subject to Title III emergency planning requirements, who will make determinations necessary to implement the emergency response plan;

(4) Procedures providing reliable, effective, and timely notification by the facility emergency coordinators and the community emergency coordinator to persons designated in the emergency response plan, and to the public, that a release has occurred;

(5) Methods for determining the occurrence of a release and the area or population likely to be affected by such a release;

(6) A description of emergency equipment and facilities in the community and at each facility in the community subject to Title III emergency planning requirements, including an identification of the persons responsible for such equipment and facilities;

(7) Evacuation plans, including provisions for precautionary evacuation and alternative traffic routes;

(8) Training programs, including schedules for training of local emergency response and medical personnel; and

(9) Methods and schedules for exercising the emergency response plan.

(d) In accordance with section 303 of SARA, the SERC of each state is to review the emergency response plan developed by the LEPC of each emergency planning district and make recommendations to the LEPC on revisions that may be necessary to ensure coordination of the plan with emergency response plans of other emergency planning districts. RRTs may review a local emergency response plan at the request of the LEPC. This request should be made by the LEPC, through the SERC and the state representative on the RRT.

(e) Title III establishes reporting requirements that provide useful information in developing emergency plans.

(1) Upon request from the LEPC, facility owners or operators shall provide promptly to such LEPC information necessary for developing and implementing the emergency response plan.

(2) Facilities required to prepare or have available a material safety data sheet (MSDS) for a hazardous chemical, as defined in 40 CFR Part 370, under the Occupational Safety and

Health Act of 1970, 29 U.S.C. 651 et seq., and regulations promulgated under that Act, shall submit a MSDS for each hazardous chemical or a list of hazardous chemicals to the appropriate SERC, LEPC, and local fire department in accordance with 40 CFR Part 370.

(3) Facilities subject to the requirements of paragraph (e)(2) of this section shall also submit an inventory form to the SERC, LEPC and the local fire department, which contains an estimate of the maximum amount of hazardous chemicals present at the facility during the preceding year, an estimate of the average daily amount of hazardous chemicals at the facility, and the location of these hazardous chemicals at the facility in accordance with 40 CFR Part 370.

(4) Certain facilities with ten or more employees and which manufacture, process, or use a toxic chemical, as defined in 40 CFR Part 372, in excess of a statutorily prescribed quantity, shall submit annual information on the chemical and releases of the chemical into the environment to EPA and the state in accordance with 40 CFR Part 372.

(f) Immediately after a release of an extremely hazardous substance, or a hazardous substance subject to the notification requirements of CERCLA section 103(a), the owner or operator of a facility, as defined in 40 CFR Part 355, shall notify the community emergency coordinator for the appropriate LEPC and the appropriate SERC in accordance with 40 CFR Part 355. As soon as practicable after such a release has occurred, the facility owner or operator shall provide a written follow-up emergency notice, or notices, if more information becomes available, setting forth and updating the information contained in the initial release notification and including additional information with respect to response actions taken, health risks associated with the release, and, where appropriate, advice regarding medical attention necessary for exposed individuals. For releases of hazardous substances subject to the notification requirements of CERCLA section 103(a), immediate notification must also be made to the NRC, as provided in § 300.405(b).

(g) Title III requires public access to information submitted pursuant to its reporting requirements. Each emergency response plan, MSDS, inventory form, toxic chemical release form, and follow-up emergency release notification is to be made available to the general public during normal working hours at the location(s) designated by the EPA Administrator, Governor, SERC, or LEPC, as appropriate.

§ 300.220 Related Title III issues.

Other related Title III requirements are found in 40 CFR Part 355.

SUBPART D -- OPERATIONAL RESPONSE PHASES FOR OIL REMOVAL

§ 300.300 Phase I - Discovery or notification.

(a) A discharge of oil may be discovered through:

(1) A report submitted by the person in charge of a vessel or facility in accordance with statutory requirements;

(2) Deliberate search by patrols;

(3) Random or incidental observation by government agencies or the public; or

(4) Other sources.

(b) Any person in charge of a vessel or a facility shall, as soon as he or she has knowledge of any discharge from such vessel or facility in violation of section 311(b)(3) of the Clean Water Act, immediately notify the NRC. If direct reporting to the NRC is not practicable, reports may be made to the USCG or EPA predesignated OSC for the geographic area where the discharge occurs. The EPA predesignated OSC may also be contacted through the regional 24-hour emergency response telephone number. All such reports shall be promptly relayed to the NRC. If it is not possible to notify the NRC or predesignated OSC immediately, reports may be made immediately to the nearest Coast Guard unit. In any event such person in charge of the vessel or facility shall notify the NRC as soon as possible.

(c) Any other person shall, as appropriate, notify the NRC of a discharge of oil.

(d) Upon receipt of a notification of discharge, the NRC shall promptly notify the OSC. The OSC shall proceed with the following phases as outlined in the RCP and OSC contingency plan.

§ 300.305 Phase II - Preliminary assessment and initiation of action.

(a) The OSC is responsible for promptly initiating a preliminary assessment.

(b) The preliminary assessment shall be conducted using available information, supplemented where necessary and possible by an on-scene inspection. The OSC shall undertake actions to:

(1) Evaluate the magnitude and severity of the discharge or threat to public health or welfare or the environment;

(2) Assess the feasibility of removal;

(3) To the extent practicable, identify potentially responsible parties; and

(4) Ensure that authority exists for undertaking additional response actions.

(c) The OSC, in consultation with legal authorities when appropriate, shall make a reasonable effort to have the discharger voluntarily and promptly perform removal actions. The OSC shall ensure adequate surveillance over whatever actions are initiated. If effective actions are not being taken to eliminate the threat, or if removal is not being properly done, the OSC shall, to the extent practicable under the circumstances, so advise the responsible party. If the responsible party does not take proper removal actions, or is unknown, or is otherwise unavailable, the OSC shall, pursuant to section 311(c)(1) of the CWA, determine whether authority for a federal response exists, and, if so, take appropriate response actions. Where practicable, continuing efforts should be made to encourage response by responsible parties.

(d) If natural resources are or may be injured by the discharge, the OSC shall ensure that state and federal trustees of affected natural resources are promptly notified in order that the trustees may initiate appropriate actions, including those identified in Subpart G. The OSC shall seek to coordinate assessments, evaluations, investigations, and planning with state and federal trustees.

§ 300.310 Phase III - Containment, countermeasures, cleanup, and disposal.

(a) Defensive actions shall begin as soon as possible to prevent, minimize, or mitigate threat(s) to public health or welfare or the environment. Actions may include but are not limited to: analyzing water samples to determine the source and spread of the oil; controlling the source of discharge; measuring and sampling; source and spread control or salvage operations; placement of physical barriers to deter the spread of the oil and to protect natural resources; control of the water discharged from upstream impoundment; and the use of chemicals and other materials in accordance with Subpart J of this Part to restrain the spread of the oil and mitigate its effects.

(b) As appropriate, actions shall be taken to recover the oil or mitigate its effects. Of the numerous chemical or physical methods that may be used, the chosen methods shall be the most consistent with protecting public health and welfare and the environment. Sinking agents shall not be used.

(c) Oil and contaminated materials recovered in cleanup operations shall be disposed of in accordance with the RCP and OSC contingency plan and any applicable laws, regulations, or requirements.

§ 300.315 Phase IV - Documentation and cost recovery.

(a) Documentation shall be collected and maintained to support all actions taken under the CWA and to form the basis for cost recovery. Whenever practicable, documentation shall be sufficient to prove the source and circumstances of the incident, the responsible party or parties, and impact and potential impacts to public health and welfare and the environment. When appropriate, documentation shall also be collected for scientific understanding of the environment and for the research and development of improved response methods and technology. Damages to private citizens, including loss of earnings, are not addressed by the NCP. Evidentiary and cost documentation procedures are specified in the USCG Marine Safety Manual (Commandant Instruction M16000.11) and further provisions are contained in 33 CFR Part 153.

(b) OSCs shall submit OSC reports to the RRT as required by § 300.165.

(c) OSCs shall ensure the necessary collection and safeguarding of information, samples, and reports. Samples and information shall be gathered expeditiously during the response to ensure an accurate record of the impacts incurred. Documentation materials shall be made available to the trustees of affected natural resources. The OSC shall make available to trustees of the affected natural resources information and documentation that can assist the trustees in the determination of actual or potential natural resource injuries.

(d) Information and reports obtained by the EPA or USCG OSC shall be transmitted to the appropriate offices responsible for follow-up actions.

§ 300.320 General pattern of response.

(a) When the OSC receives a report of a discharge, actions normally should be taken in the following sequence:

(1) When the reported discharge is an actual or potential major discharge, immediately notify the RRT, including the affected state, if appropriate, and the NRC.

(2) Investigate the report to determine pertinent information such as the threat posed to public health or welfare or the environment, the type and quantity of polluting material, and the source of the discharge.

(3) Officially classify the size of the discharge and determine the course of action to be followed.

(4) Determine whether a discharger or other person is properly carrying out removal. Removal is being done properly when:

(i) The cleanup is fully sufficient to minimize or mitigate threat(s) to public health and welfare and the environment. Removal efforts are improper to the extent that federal efforts are necessary to minimize further or mitigate those threats; and

(ii) The removal efforts are in accordance with applicable regulations, including the NCP.

(5) Determine whether a state or political subdivision thereof has the capability to carry out response actions and whether a contract or cooperative agreement has been established with the appropriate fund administrator for this purpose.

(6) Notify the trustees of affected natural resources in accordance with the applicable RCP.

(b) The preliminary inquiry will probably show that the situation falls into one of four categories. These categories and the appropriate response to each are outlined below:

(1) If the investigation shows that no discharge occurred, or it shows a minor discharge with no removal action required, the case may be closed for response purposes.

(2) If the investigation shows a minor discharge with the responsible party taking proper removal action, contact shall be established with the party. The removal action shall, whenever possible, be monitored to ensure continued proper action.

(3) If the investigation shows a minor discharge with improper removal action being taken, the following measures shall be taken:

(i) An immediate effort shall, as appropriate, be made to stop further pollution and remove past and ongoing contamination.

(ii) The responsible party shall be advised of what action will be considered appropriate.

(iii) If the responsible party does not properly respond, the party shall be notified of potential liability for federal response performed under the CWA. This liability includes all costs of removal and may include the costs of assessing and restoring, rehabilitating, replacing or acquiring the equivalent of damaged natural resources and other actual or necessary costs of a federal response.

(iv) The OSC shall notify appropriate state and local officials, keep the RRT advised, and initiate Phase III operations, as described in § 300.310, as conditions warrant.

(v) Information shall be collected for possible recovery of response costs in accordance with § 300.315.

(4) When the investigation shows that an actual or potential medium or major oil discharge exists, the OSC shall follow the same general procedures as for a minor discharge. If appropriate, the OSC shall recommend activation of the RRT.

§ 300.330 Wildlife conservation.

The Department of Interior, Department of Commerce and state representatives to the RRT shall arrange for the coordination of professional and volunteer groups permitted and trained to participate in wildlife dispersal, collection, cleaning, rehabilitation, and recovery activities, consistent with 16 U.S.C. 703-712 and applicable state laws. The RCP and OSC contingency plans shall, to the extent practicable, identify organizations or institutions that are permitted to participate in such activities and operate such facilities. Wildlife conservation activities will normally be included in Phase III response actions, described in § 300.310.

§ 300.335 Funding.

(a) If the person responsible for the discharge does not act promptly or take proper removal actions, or if the person responsible for the discharge is unknown, federal discharge removal actions may begin under section 311(c)(1) of the CWA. The discharger, if known, is liable for costs of federal removal in accordance with section 311(f) of the CWA and other federal laws.

(b) Actions undertaken by the participating agencies in response to pollution shall be carried out under existing programs and authorities when available. Federal agencies will make resources available, expend funds, or participate in response to oil discharges under their existing authority. Authority to expend resources will be in accordance with agencies' basic statutes and, if required, through interagency agreements. Where the OSC requests assistance from a federal agency, that agency may be reimbursed in accordance with the provisions of 33 CFR 153.407. Specific interagency reimbursement agreements may be signed when necessary to ensure that the federal resources will be available for a timely response to a discharge of oil. The ultimate decisions as to the appropriateness of expending funds rest with the agency that is held accountable for such expenditures.

(c) The OSC shall exercise sufficient control over removal operations to be able to certify that reimbursement from the following funds is appropriate:

(1) The oil pollution fund, administered by the Commandant, USCG, that has been established pursuant to section 311(k) of the CWA or any other spill response fund established by Congress. Regulations governing the administration and use of the section 311(k) fund are contained in 33 CFR Part 153.

(2) The fund authorized by the Deepwater Port Act is administered by the Commandant, USCG. Governing regulations are contained in 33 CFR Part 137.

(3) The fund authorized by the Outer Continental Shelf Lands Act, as amended, is administered by the Commandant, USCG. Governing regulations are contained in 33 CFR Parts 135 and 136.

(4) The fund authorized by the Trans-Alaska Pipeline Authorization Act is administered by a Board of Trustees under the purview of the Secretary of the Interior. Governing regulations are contained in 43 CFR Part 29.

(d) Response actions other than removal, such as scientific investigations not in support of removal actions or law enforcement, shall be provided by the agency with legal responsibility for those specific actions.

(e) The funding of a response to a discharge from a federally operated or supervised facility or vessel is the responsibility of the operating or supervising agency.

(f) The following agencies have funds available for certain discharge removal actions:

(1) EPA may provide funds to begin timely discharge removal actions when the OSC is an EPA representative.

(2) The USCG pollution control efforts are funded under "operating expenses." These funds are used in accordance with agency directives.

(3) The Department of Defense has two specific sources of funds that may be applicable to an oil discharge under appropriate circumstances. This does not consider military resources that might be made available under specific conditions.

(i) Funds required for removal of a sunken vessel or similar obstruction of navigation are available to the Corps of Engineers through Civil Works Appropriations, Operations and Maintenance, General.

(ii) The U.S. Navy may conduct salvage operations contingent on defense operational commitments, when funded by the requesting agency. Such funding may be requested on a direct cite basis.

(4) Pursuant to section 311(c)(2)(H) of the CWA, the state or states affected by a discharge of oil may act where necessary to remove such discharge and may, pursuant to 33 CFR Part 153, be reimbursed from the oil pollution fund for the reasonable costs incurred in such a removal.

(i) Removal by a state is necessary within the meaning of section 311(c)(2)(H) of the CWA when the OSC determines that the owner or operator of the vessel, onshore facility, or offshore facility from which the discharge occurs does not effect removal properly, or is unknown, and that:

(A) State action is required to minimize or mitigate significant threat(s) to the public health or welfare or the environment that federal action cannot minimize or mitigate, or

(B) Removal or partial removal can be done by the state at a cost that is less than or not significantly greater than the cost that would be incurred by the federal agencies.

(ii) State removal actions must be in compliance with the NCP in order to qualify for reimbursement.

(iii) State removal actions are considered to be Phase III actions, described in § 300.310, under the same definitions applicable to federal agencies.

(iv) Actions taken by local governments in support of federal discharge removal operations are considered to be actions of the state for purposes of this section. The RCP and OSC contingency plan shall show what funds and resources are available from participating agencies under various conditions and cost arrangements. Interagency agreements may be necessary to specify when reimbursement is required.

SUBPART E -- HAZARDOUS SUBSTANCE RESPONSE

§ 300.400 General.

(a) This subpart establishes methods and criteria for determining the appropriate extent of response authorized by CERCLA:

(1) When there is a release of a hazardous substance into the environment; or

(2) When there is a release into the environment of any pollutant or contaminant that may present an imminent and substantial danger to the public health or welfare.

(b) Limitations on response. Unless the lead agency determines that a release constitutes a public health or environmental emergency and no other person with the authority and capability to respond will do so in a timely manner, a removal or remedial action under section 104 of CERCLA shall not be undertaken in response to a release:

(1) Of a naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena, from a location where it is naturally found;

(2) From products that are part of the structure of, and result in exposure within, residential buildings or business or community structures; or

(3) Into public or private drinking water supplies due to deterioration of the system through ordinary use.

(c) Fund-financed action. In determining the need for and in planning or undertaking Fund-financed action, the lead agency shall, to the extent practicable:

(1) Engage in prompt response;

(2) Provide for state participation in response actions, as described in Subpart F of this Part;

(3) Conserve Fund monies by encouraging private party response;

(4) Be sensitive to local community concerns;

(5) Consider using treatment technologies;

(6) Involve the Regional Response Team (RRT) in both removal

and remedial response actions at appropriate decision-making stages;

(7) Encourage the involvement and sharing of technology by industry and other experts; and

(8) Encourage the involvement of organizations to coordinate responsible party actions, foster site response, and provide technical advice to the public, federal and state governments, and industry.

(d) Entry and access. (1) For purposes of determining the need for response, or choosing or taking a response action, or otherwise enforcing the provisions of CERCLA, EPA, or the appropriate federal agency, and a state or political subdivision operating pursuant to a contract or cooperative agreement under CERCLA section 104(d)(1), has the authority to enter any vessel, facility, establishment or other place, property, or location described in paragraph (d)(2) below and conduct, complete, operate, and maintain any response actions authorized by CERCLA or these regulations.

(2)(i) Under the authorities described in paragraph (d)(1) above, EPA, or the appropriate federal agency, and a state or political subdivision operating pursuant to a contract or cooperative agreement under CERCLA section 104(d)(1), may enter:

(A) Any vessel, facility, establishment, or other place or property where any hazardous substance or pollutant or contaminant may be or has been generated, stored, treated, disposed of, or transported from;

(B) Any vessel, facility, establishment, or other place or property from which, or to which, a hazardous substance or pollutant or contaminant has been, or may have been, released or where such release is or may be threatened;

(C) Any vessel, facility, establishment, or other place or property where entry is necessary to determine the need for response or the appropriate response or to effectuate a response action; or

(D) Any vessel, facility, establishment, or other place, property, or location adjacent to those vessels, facilities, establishments, places or properties described in paragraphs (d)(2)(i)(A), (B), or (C) of this section.

(ii) Once a determination has been made that there is a reasonable basis to believe that there has been or may be a release, EPA, or the appropriate federal agency, and a state or political subdivision operating pursuant to a contract or cooperative agreement under CERCLA section 104(d)(1), is authorized to enter all vessels, facilities, establishments, places, properties, or locations specified in paragraph (d)(2)(i) of this section, at which the release is believed to be, and all other vessels, facilities, establishments, places, properties or locations identified in paragraph (d)(2)(i) above that are related to the response or are necessary to enter in responding to that release.

(3) The lead agency may designate as its representative solely for the purpose of access, among others, one or more potentially responsible parties, including representatives, employees, agents and contractors of such parties. EPA, or the appropriate federal agency, may exercise the authority contained in section 104(e) of CERCLA to obtain access for its designated representative. A potentially responsible party may only be designated as a representative of the lead agency where that potentially responsible party has agreed to conduct response activities pursuant to an administrative order or consent decree.

(4)(i) If consent is not granted under the authorities described in paragraph (d)(1) of this section, or if consent is conditioned in any manner, EPA, or the appropriate federal agency, may issue an order pursuant to section 104(e)(5) of CERCLA directing compliance with the request for access made under § 300.400(d)(1). EPA or the appropriate federal agency may ask the Attorney General to commence a civil action to compel compliance with either a request for access or an order directing compliance.

(ii) EPA reserves the right to proceed, where appropriate, under applicable authority other than CERCLA section 104(e).

(iii) The administrative order may direct compliance with a request to enter or inspect any vessel, facility, establishment, place, property, or location described in paragraph (d)(2) of this section.

(iv) Each order shall contain:

(A) A determination by EPA, or the appropriate federal agency, that it is reasonable to believe that there may be or has been a release or threat of a release of a hazardous substance or pollutant or contaminant and a statement of the facts upon which the determination is based;

(B) A description, in light of CERCLA response authorities, of the purpose and estimated scope and duration of the entry, including a description of the specific anticipated activities to be conducted pursuant to the order;

(C) A provision advising the person who failed to consent that an officer or employee of the agency that issued the order will be available to confer with respondent prior to effective date of the order; and

(D) A provision advising the person who failed to consent that a court may impose a penalty of up to $25,000 per day for unreasonable failure to comply with the order.

(v) Orders shall be served upon the person or responsible party who failed to consent prior to their effective date. Force shall not be used to compel compliance with an order.

(vi) Orders may not be issued for any criminal investigations.

(e) Permit requirements. (1) No federal, state, or local permits are required for on-site response actions conducted pursuant to CERCLA sections 104, 106, 120, 121 or 122. The term "on-site" means the areal extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of the response action.

(2) Permits, if required, shall be obtained for all response activities conducted off-site.

(f) Health assessments. Health assessments shall be performed by ATSDR at facilities on or proposed to be listed on the NPL and may be performed at other releases or facilities in response to petitions made to ATSDR. Where available, these health assessments may be used by the lead agency to assist in determining whether response actions should be taken and/or to identify the need for additional studies to assist in the assessment of potential human health effects associated with releases or potential releases of hazardous substances.

(g) Identification of applicable or relevant and appropriate requirements. (1) The lead and support agencies shall identify requirements applicable to the release or remedial action contemplated based upon an objective determination of whether the requirement specifically addresses a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance found at a CERCLA site.

(2) If, based upon paragraph (g)(1) of this section, it is determined that a requirement is not applicable to a specific release, the requirement may still be relevant and appropriate to the circumstances of the release. In evaluating relevance and appropriateness, the factors in paragraphs (g)(2)(i) through (viii) shall be examined, where pertinent, to determine whether a requirement addresses problems or situations sufficiently similar to the circumstances of the release or remedial action contemplated, and whether the requirement is well-suited to the site, and therefore is both relevant and appropriate. The

pertinence of each of the following factors will depend, in part, on whether a requirement addresses a chemical, location, or action. The following comparisons shall be made, where pertinent, to determine relevance and appropriateness:

(i) The purpose of the requirement and the purpose of the CERCLA action;

(ii) The medium regulated or affected by the requirement and the medium contaminated or affected at the CERCLA site;

(iii) The substances regulated by the requirement and the substances found at the CERCLA site;

(iv) The actions or activities regulated by the requirement and the remedial action contemplated at the CERCLA site;

(v) Any variances, waivers, or exemptions of the requirement and their availability for the circumstances at the CERCLA site;

(vi) The type of place regulated and the type of place affected by the release or CERCLA action;

(vii) The type and size of structure or facility regulated and the type and size of structure or facility affected by the release or contemplated by the CERCLA action;

(viii) Any consideration of use or potential use of affected resources in the requirement and the use or potential use of the affected resource at the CERCLA site.

(3) In addition to applicable or relevant and appropriate requirements, the lead and support agencies may, as appropriate, identify other advisories, criteria, or guidance to be considered for a particular release. The "to be considered" (TBC) category consists of advisories, criteria, or guidance that were developed by EPA, other federal agencies, or states that may be useful in developing CERCLA remedies.

(4) Only those state standards that are promulgated, are identified by the state in a timely manner and are more stringent than federal requirements may be applicable or relevant and appropriate. For purposes of identification and notification of promulgated state standards, the term "promulgated" means that the standards are of general applicability and are legally enforceable.

(5) The lead agency and support agency shall identify their specific requirements that are applicable or relevant and appropriate for a particular site. These agencies shall notify each other, in a timely manner as described in § 300.515(d), of the requirements they have determined to be applicable or

relevant and appropriate. When identifying a requirement as an ARAR, the lead agency and support agency shall include a citation to the statute or regulation from which the requirement is derived.

(6) Notification of ARARs shall be according to procedures and timeframes specified in §§ 300.515(d)(2) and (h)(2).

(h) Oversight. The lead agency may provide oversight for actions taken by potentially responsible parties to ensure that a response is conducted consistent with this Part. The lead agency may also monitor the actions of third parties preauthorized under Subpart H of this Part. EPA will provide oversight when the response is pursuant to an EPA order or federal consent decree.

(i) Other. (1) This subpart does not establish any preconditions to enforcement action by either the federal or state governments to compel response actions by potentially responsible parties.

(2) While much of this subpart is oriented toward federally funded response actions, this subpart may be used as guidance concerning methods and criteria for response actions by other parties under other funding mechanisms. Except as provided in Subpart H of this Part, nothing in this part is intended to limit the rights of any person to seek recovery of response costs from responsible parties pursuant to CERCLA section 107.

(3) Activities by the federal and state governments in implementing this subpart are discretionary governmental functions. This subpart does not create in any private party a right to federal response or enforcement action. This subpart does not create any duty of the federal government to take any response action at any particular time.

§ 300.405 Discovery or notification.

(a) A release may be discovered through:

(1) A report submitted in accordance with section 103(a) of CERCLA, i.e., reportable quantities codified at 40 CFR Part 302;

(2) A report submitted to EPA in accordance with section 103(c) of CERCLA;

(3) Investigation by government authorities conducted in accordance with section 104(e) of CERCLA or other statutory authority;

(4) Notification of a release by a federal or state permit holder when required by its permit;

(5) Inventory or survey efforts or random or incidental observation reported by government agencies or the public;

(6) Submission of a citizen petition to EPA or the appropriate federal facility requesting a preliminary assessment, in accordance with section 105(d) of CERCLA; and

(7) Other sources.

(b) Any person in charge of a vessel or a facility shall report releases as described in paragraph (a)(1) of this section to the National Response Center (NRC). If direct reporting to the NRC is not practicable, reports may be made to the United States Coast Guard (USCG) on-scene coordinator (OSC) for the geographic area where the release occurs. The EPA predesignated OSC may also be contacted through the regional 24-hour emergency response telephone number. All such reports shall be promptly relayed to the NRC. If it is not possible to notify the NRC or predesignated OSC immediately, reports may be made immediately to the nearest USCG unit. In any event, such person in charge of the vessel or facility shall notify the NRC as soon as possible.

(c) All other reports of releases described under paragraph (a) of this section, except releases reported under paragraphs (a)(2) and (6) of this section, shall, as appropriate, be made to the NRC.

(d) The NRC will generally need information that will help to characterize the release. This will include, but not be limited to: location of the release; type(s) of material(s) released; an estimate of the quantity of material released; possible source of the release; date and time of the release. Reporting under paragraphs (b) and (c) of this section shall not be delayed due to incomplete notification information.

(e) Upon receipt of a notification of a release, the NRC shall promptly notify the appropriate OSC. The OSC shall notify the Governor, or designee, of the state affected by the release.

(f)(1) When the OSC is notified of a release that may require response pursuant to § 300.415(b), a removal site evaluation shall, as appropriate, be promptly undertaken pursuant to § 300.410.

(2) When notification indicates that removal action pursuant to § 300.415(b) is not required, a remedial site evaluation shall, if appropriate, be undertaken by the lead agency pursuant to § 300.420, if one has not already been performed.

(3) If radioactive substances are present in a release, the EPA Radiological Response Coordinator should be notified for

evaluation and assistance, consistent with §§ 300.130(f) and 300.145(f).

(g) Release notification made to the NRC under this section does not relieve the owner/operator of a facility from any obligations to which it is subject under SARA Title III or state law. In particular, it does not relieve the owner/operator from the requirements of section 304 of SARA Title III and 40 CFR Part 355 and § 300.215(f) of this Part for notifying the community emergency coordinator for the appropriate local emergency planning committee of all affected areas and the state emergency response commission of any state affected that there has been a release. Federal agencies are not legally obligated to comply with the requirements of Title III of SARA.

§ 300.410 Removal site evaluation.

(a) A removal site evaluation includes a removal preliminary assessment and, if warranted, a removal site inspection.

(b) A removal site evaluation of a release identified for possible CERCLA response pursuant to § 300.415 shall, as appropriate, be undertaken by the lead agency as promptly as possible. The lead agency may perform a removal preliminary assessment in response to petitions submitted by a person who is, or may be, affected by a release of a hazardous substance, pollutant or contaminant pursuant to § 300.420(b)(5).

(c)(1) The lead agency shall, as appropriate, base the removal preliminary assessment on readily available information. A removal preliminary assessment may include, but is not limited to:

(i) Identification of the source and nature of the release or threat of release;

(ii) Evaluation by ATSDR or by other sources, for example, state public health agencies, of the threat to public health;

(iii) Evaluation of the magnitude of the threat;

(iv) Evaluation of factors necessary to make the determination of whether a removal is necessary; and

(v) Determination of whether a nonfederal party is undertaking proper response.

(2) A removal preliminary assessment of releases from hazardous waste management facilities may include collection or review of data such as site management practices, information from generators, photographs, analysis of historical photographs,

literature searches, and personal interviews conducted as appropriate.

(d) A removal site inspection may be performed if more information is needed. Such inspection may include a perimeter (off-site) or on-site inspection, taking into consideration whether such inspection can be performed safely.

(e) A removal site evaluation shall be terminated when the OSC or lead agency determines:

(1) There is no release;

(2) The source is neither a vessel nor a facility as defined in § 300.5 of the NCP;

(3) The release involves neither a hazardous substance, nor a pollutant or contaminant that may present an imminent and substantial danger to public health or welfare;

(4) The release consists of a situation specified in § 300.400(b)(1) through (3) subject to limitations on response;

(5) The amount, quantity, or concentration released does not warrant federal response;

(6) A party responsible for the release, or any other person, is providing appropriate response, and on-scene monitoring by the government is not required; or

(7) The removal site evaluation is completed.

(f) The results of the removal site evaluation shall be documented.

(g) If natural resources are or may be injured by the release, the OSC or lead agency shall ensure that state and federal trustees of the affected natural resources are promptly notified in order that the trustees may initiate appropriate actions, including those identified in Subpart G of this Part. The OSC or lead agency shall seek to coordinate necessary assessments, evaluations, investigations, and planning with such state and federal trustees.

(h) If the removal site evaluation indicates that removal action under § 300.415 is not required, but that remedial action under § 300.430 may be necessary, the lead agency shall, as appropriate, initiate a remedial site evaluation pursuant to § 300.420.

§ 300.415 Removal action.

(a)(1) In determining the appropriate extent of action to be taken in response to a given release, the lead agency shall first review the removal site evaluation, any information produced through a remedial site evaluation, if any has been done previously, and the current site conditions, to determine if removal action is appropriate.

(2) Where the responsible parties are known, an effort initially shall be made, to the extent practicable, to determine whether they can and will perform the necessary removal action promptly and properly.

(3) This section does not apply to removal actions taken pursuant to section 104(b) of CERCLA. The criteria for such actions are set forth in section 104(b) of CERCLA.

(b)(1) At any release, regardless of whether the site is included on the National Priorities List, where the lead agency makes the determination, based on the factors in paragraph (b)(2) of this section, that there is a threat to public health or welfare or the environment, the lead agency may take any appropriate removal action to abate, prevent, minimize, stabilize, mitigate, or eliminate the release or the threat of release.

(2) The following factors shall be considered in determining the appropriateness of a removal action pursuant to this section:

(i) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants;

(ii) Actual or potential contamination of drinking water supplies or sensitive ecosystems;

(iii) Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release;

(iv) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;

(v) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;

(vi) Threat of fire or explosion;

(vii) The availability of other appropriate federal or state response mechanisms to respond to the release; and

(viii) Other situations or factors that may pose threats to public health or welfare or the environment.

(3) If the lead agency determines that a removal action is appropriate, actions shall, as appropriate, begin as soon as possible to abate, prevent, minimize, stabilize, mitigate, or eliminate the threat to public health or welfare or the environment. The lead agency shall, at the earliest possible time, also make any necessary determinations pursuant to paragraph (b)(4) of this section.

(4) Whenever a planning period of at least six months exists before on-site activities must be initiated, and the lead agency determines, based on a site evaluation, that a removal action is appropriate:

(i) The lead agency shall conduct an engineering evaluation/cost analysis (EE/CA) or its equivalent. The EE/CA is an analysis of removal alternatives for a site.

(ii) If environmental samples are to be collected, the lead agency shall develop sampling and analysis plans that shall provide a process for obtaining data of sufficient quality and quantity to satisfy data needs. Sampling and analysis plans shall be reviewed and approved by EPA. The sampling and analysis plans shall consist of two parts:

(A) The field sampling plan, which describes the number, type, and location of samples and the type of analyses; and

(B) The quality assurance project plan, which describes policy, organization, and functional activities and the data quality objectives and measures necessary to achieve adequate data for use in planning and documenting the removal action.

(5) Fund-financed removal actions, other than those authorized under section 104(b) of CERCLA, shall be terminated after $2 million has been obligated for the action or twelve months have elapsed from the date that removal activities begin on-site, unless the lead agency determines that:

(i) There is an immediate risk to public health or welfare or the environment; continued response actions are immediately required to prevent, limit, or mitigate an emergency; and such assistance will not otherwise be provided on a timely basis; or

(ii) Continued response action is otherwise appropriate and consistent with the remedial action to be taken.

(c) Removal actions shall, to the extent practicable, contribute to the efficient performance of any anticipated long-term remedial action with respect to the release concerned.

(d) The following removal actions are, as a general rule, appropriate in the types of situations shown; however, this list is not exhaustive and is not intended to prevent the lead agency from taking any other actions deemed necessary under CERCLA or other appropriate federal or state enforcement or response authorities, and the list does not create a duty on the lead agency to take action at any particular time:

(1) Fences, warning signs, or other security or site control precautions -- where humans or animals have access to the release;

(2) Drainage controls, for example, run-off or run-on diversion -- where needed to reduce migration of hazardous substances or pollutants or contaminants off-site or to prevent precipitation or run-off from other sources, for example, flooding, from entering the release area from other areas;

(3) Stabilization of berms, dikes, or impoundments or drainage or closing of lagoons -- where needed to maintain the integrity of the structures;

(4) Capping of contaminated soils or sludges -- where needed to reduce migration of hazardous substances or pollutants or contaminants into soil, ground or surface water, or air;

(5) Using chemicals and other materials to retard the spread of the release or to mitigate its effects -- where the use of such chemicals will reduce the spread of the release;

(6) Excavation, consolidation, or removal of highly contaminated soils from drainage or other areas -- where such actions will reduce the spread of, or direct contact with, the contamination;

(7) Removal of drums, barrels, tanks, or other bulk containers that contain or may contain hazardous substances or pollutants or contaminants -- where it will reduce the likelihood of spillage; leakage; exposure to humans, animals, or food chain; or fire or explosion;

(8) Containment, treatment, disposal, or incineration of hazardous materials -- where needed to reduce the likelihood of human, animal, or food chain exposure; or

(9) Provision of alternative water supply -- where necessary immediately to reduce exposure to contaminated household water and continuing until such time as local authorities can satisfy the need for a permanent remedy.

(e) Where necessary to protect public health or welfare, the lead agency shall request that FEMA conduct a temporary relocation or that state/local officials conduct an evacuation.

(f) If the lead agency determines that the removal action will not fully address the threat posed by the release and the release may require remedial action, the lead agency shall ensure an orderly transition from removal to remedial response activities.

(g) Removal actions conducted by states under cooperative agreements, described in Subpart F of this Part, shall comply with all requirements of this section.

(h) Facilities operated by a state or political subdivision at the time of disposal require a state cost share of at least 50 percent of Fund-financed response costs if a Fund-financed remedial action is conducted.

(i) Fund-financed removal actions under CERCLA section 104 and removal actions pursuant to CERCLA section 106 shall, to the extent practicable considering the exigencies of the situation, attain applicable or relevant and appropriate requirements under federal environmental or state environmental or facility siting laws. Waivers described in § 300.430(f)(1)(ii)(C) may be used for removal actions. Other federal and state advisories, criteria or guidance may, as appropriate, be considered in formulating the removal action (see § 300.400(g)(3)). In determining whether compliance with ARARs is practicable, the lead agency may consider appropriate factors, including:

(A) The urgency of the situation; and

(B) The scope of the removal action to be conducted.

(j) Removal actions pursuant to section 106 or 122 of CERCLA are not subject to the following requirements of this section:

(1) Section 300.415(a)(2) requirement to locate responsible parties and have them undertake the response;

(2) Section 300.415(b)(2)(vii) requirement to consider the availability of other appropriate federal or state response and enforcement mechanisms to respond to the release;

(3) Section 300.415(b)(5) requirement to terminate response after $2 million has been obligated or twelve months have elapsed from the date of the initial response; and

(4) Section 300.415(f) requirement to assure an orderly transition from removal to remedial action.

(k) To the extent practicable, provision for post-removal site control following a fund-financed removal action at both NPL and non-NPL sites is encouraged to be made prior to the initiation of the removal action. Such post-removal site control includes actions necessary to ensure the effectiveness and integrity of the removal action after the completion of the on-site removal action or after the $2 million or 12 month statutory limits are reached for sites that do not meet the exemption criteria in paragraph (b)(5) of this section. Post-removal site control may be conducted by:

(1) The affected state or political subdivision thereof or local units of government for any removal;

(2) Potentially responsible parties; or

(3) EPA's remedial program for some federal-lead Fund-financed responses at NPL sites.

(l) OSCs/RPMs conducting removal actions shall submit OSC reports to the RRT as required by § 300.165.

(m) Community relations in removal actions. (1) In the case of all removal actions taken pursuant to § 300.415 or CERCLA enforcement actions to compel removal response, a spokesperson shall be designated by the lead agency. The spokesperson shall inform the community of actions taken, respond to inquiries, and provide information concerning the release. All news releases or statements made by participating agencies shall be coordinated with the OSC/RPM. The spokesperson shall notify, at a minimum, immediately affected citizens, state and local officials and, when appropriate, civil defense or emergency management agencies.

(2) For actions where, based on the site evaluation, the lead agency determines that a removal is appropriate, and that less than six months exists before on-site removal activity must begin, the lead agency shall:

(i) Publish a notice of availability of the administrative record file established pursuant to § 300.820 in a major local newspaper of general circulation within 60 days of initiation of on-site removal activity;

(ii) Provide a public comment period, as appropriate, of not less than 30 days from the time the administrative record file is made available for public inspection, pursuant to § 300.820(b)(2); and

(iii) Prepare a written response to significant comments pursuant to § 300.820(b)(3).

(3) For removal actions where on-site action is expected to extend beyond 120 days from the initiation of on-site removal activities, the lead agency shall by the end of the 120-day period:

(i) Conduct interviews with local officials, community residents, public interest groups, or other interested or affected parties, as appropriate, to solicit their concerns, information needs, and how or when citizens would like to be involved in the Superfund process;

(ii) Prepare a formal community relations plan (CRP) based on the community interviews and other relevant information, specifying the community relations activities that the lead agency expects to undertake during the response; and

(iii) Establish at least one local information repository at or near the location of the response action. The information repository should contain items made available for public information. Further, an administrative record file established pursuant to Subpart I for all removal actions shall be available for public inspection in at least one of the repositories. The lead agency shall inform the public of the establishment of the information repository and provide notice of availability of the administrative record file for public review. All items in the repository shall be available for public inspection and copying.

(4) Where, based on the site evaluation, the lead agency determines that a removal action is appropriate and that a planning period of at least six months exists prior to initiation of the on-site removal activities, the lead agency shall at a minimum:

(i) Comply with the requirements set forth in paragraphs (m)(3)(i), (ii), and (iii) of this section, prior to the completion of the engineering evaluation/cost analysis (EE/CA), or its equivalent, except that the information repository and the administrative record file will be established no later than when the EE/CA approval memorandum is signed;

(ii) Publish a notice of availability and brief description of the EE/CA in a major local newspaper of general circulation pursuant to § 300.820;

(iii) Provide a reasonable opportunity, not less than 30 calendar days, for submission of written and oral comments after completion of the EE/CA pursuant to § 300.820(a). Upon timely request, the lead agency will extend the public comment period by a minimum of 15 days; and

(iv) Prepare a written response to significant comments pursuant to § 300.820(a).

§ 300.420 Remedial site evaluation.

(a) General. The purpose of this section is to describe the methods, procedures, and criteria the lead agency shall use to collect data, as required, and evaluate releases of hazardous substances, pollutants, or contaminants. The evaluation may consist of two steps: a remedial preliminary assessment (PA) and a remedial site inspection (SI).

(b) Remedial preliminary assessment. (1) The lead agency shall perform a remedial PA on all sites in CERCLIS as defined in § 300.5 to:

(i) Eliminate from further consideration those sites that pose no threat to public health or the environment;

(ii) Determine if there is any potential need for removal action;

(iii) Set priorities for site inspections; and

(iv) Gather existing data to facilitate later evaluation of the release pursuant to the Hazard Ranking System (HRS) if warranted.

(2) A remedial PA shall consist of a review of existing information about a release such as information on the pathways of exposure, exposure targets, and source and nature of release. A remedial PA shall also include an off-site reconnaissance as appropriate. A remedial PA may include an on-site reconnaissance where appropriate.

(3) If the remedial PA indicates that a removal action may be warranted, the lead agency shall initiate removal evaluation pursuant to § 300.410.

(4) In performing a remedial PA, the lead agency may complete the EPA Preliminary Assessment form, available from EPA regional offices, or its equivalent, and shall prepare a PA report, which shall include:

(i) A description of the release;

(ii) A description of the probable nature of the release; and

(iii) A recommendation on whether further action is warranted, which lead agency should conduct further action, and whether an SI or removal action or both should be undertaken.

(5) Any person may petition the lead federal agency (EPA or the appropriate federal agency in the case of a release or

suspected release from a federal facility), to perform a PA of a release when such person is, or may be, affected by a release of a hazardous substance, pollutant, or contaminant. Such petitions shall be addressed to the EPA Regional Administrator for the region in which the release is located, except that petitions for PAs involving federal facilities should be addressed to the head of the appropriate federal agency.

(i) Petitions shall be signed by the petitioner and shall contain the following:

(A) The full name, address, and phone number of petitioner;

(B) A description, as precisely as possible, of the location of the release; and

(C) How the petitioner is or may be affected by the release.

(ii) Petitions should also contain the following information to the extent available:

(A) What type of substances were or may be released;

(B) The nature of activities that have occurred where the release is located; and

(C) Whether local and state authorities have been contacted about the release.

(iii) The lead federal agency shall complete a remedial or removal PA within one year of the date of receipt of a complete petition pursuant to paragraph (b)(5) of this section, if one has not been performed previously, unless the lead federal agency determines that a PA is not appropriate. Where such a determination is made, the lead federal agency shall notify the petitioner and will provide a reason for the determination.

(iv) When determining if performance of a PA is appropriate, the lead federal agency shall take into consideration:

(A) Whether there is information indicating that a release has occurred or there is a threat of a release of a hazardous substance, pollutant, or contaminant; and

(B) Whether the release is eligible for response under CERCLA.

(c) Remedial site inspection. (1) The lead agency shall perform a remedial SI as appropriate to:

(i) Eliminate from further consideration those releases that pose no significant threat to public health or the environment;

(ii) Determine the potential need for removal action;

(iii) Collect or develop additional data, as appropriate, to evaluate the release pursuant to the HRS; and

(iv) Collect data in addition to that required to score the release pursuant to the HRS, as appropriate, to better characterize the release for more effective and rapid initiation of the RI/FS or response under other authorities.

(2) The remedial SI shall build upon the information collected in the remedial PA. The remedial SI shall involve, as appropriate, both on- and off-site field investigatory efforts, and sampling.

(3) If the remedial SI indicates that removal action may be appropriate, the lead agency shall initiate removal site evaluation pursuant to § 300.410.

(4) Prior to conducting field sampling as part of site inspections, the lead agency shall develop sampling and analysis plans that shall provide a process for obtaining data of sufficient quality and quantity to satisfy data needs. The sampling and analysis plans shall consist of two parts:

(i) The field sampling plan, which describes the number, type and location of samples and the type of analyses, and

(ii) The quality assurance project plan (QAPP), which describes policy, organization and functional activities and the data quality objectives and measures necessary to achieve adequate data for use in site evaluation and hazard ranking system activities.

(5) Upon completion of a remedial SI, the lead agency shall prepare a report that includes the following:

(i) A description/history/nature of waste handling;

(ii) A description of known contaminants;

(iii) A description of pathways of migration of contaminants;

(iv) An identification and description of human and environmental targets; and

(v) A recommendation on whether further action is warranted.

§ 300.425 Establishing remedial priorities.

(a) General. The purpose of this section is to identify the criteria as well as the methods and procedures EPA uses to establish its priorities for remedial actions.

(b) National Priorities List. The NPL is the list of priority releases for long-term remedial evaluation and response.

(1) Only those releases included on the NPL shall be considered eligible for Fund-financed remedial action. Removal actions (including remedial planning activities, RI/FSs, and other actions taken pursuant to CERCLA section 104(b)) are not limited to NPL sites.

(2) Inclusion of a release on the NPL does not imply that monies will be expended, nor does the rank of a release on the NPL establish the precise priorities for the allocation of Fund resources. EPA may also pursue other appropriate authorities to remedy the release, including enforcement actions under CERCLA and other laws. A site's rank on the NPL serves, along with other factors, including enforcement actions, as a basis to guide the allocation of Fund resources among releases.

(3) Federal facilities that meet the criteria identified in paragraph (c) of this section are eligible for inclusion on the NPL. Except as provided by CERCLA sections 111(e)(3) and 111(c), federal facilities are not eligible for Fund-financed remedial actions.

(4) Inclusion on the NPL is not a precondition to action by the lead agency under CERCLA sections 106 or 122 or to action under CERCLA section 107 for recovery of non-Fund-financed costs or Fund-financed costs other than Fund-financed remedial construction costs.

(c) Methods for determining eligibility for NPL. A release may be included on the NPL if the release meets one of the following criteria:

(1) The release scores sufficiently high pursuant to the Hazard Ranking System described in Appendix A to this Part.

(2) A state (not including Indian tribes) has designated a release as its highest priority. States may make only one such designation; or

(3) The release satisfies all of the following criteria:

(i) The Agency for Toxic Substances and Disease Registry has issued a health advisory that recommends dissociation of individuals from the release;

(ii) EPA determines that the release poses a significant threat to public health; and

(iii) EPA anticipates that it will be more cost-effective to use its remedial authority than to use removal authority to respond to the release.

(d) Procedures for placing sites on the NPL. Lead agencies may submit candidates to EPA by scoring the release using the HRS and providing the appropriate backup documentation.

(1) Lead agencies may submit HRS scoring packages to EPA anytime throughout the year.

(2) EPA shall review lead agencies' HRS scoring packages and revise them as appropriate. EPA shall develop any additional HRS scoring packages on releases known to EPA.

(3) EPA shall compile the NPL based on the methods identified in paragraph (c) of this section.

(4) EPA shall update the NPL at least once a year.

(5) To ensure public involvement during the proposal to add a release to the NPL, EPA shall:

(i) Publish the proposed rule in the FEDERAL REGISTER and solicit comments through a public comment period; and

(ii) Publish the final rule in the FEDERAL REGISTER, and make available a response to each significant comment and any significant new data submitted during the comment period.

(6) Releases may be categorized on the NPL when deemed appropriate by EPA.

(e) Deletion from the NPL. Releases may be deleted from or recategorized on the NPL where no further response is appropriate.

(1) EPA shall consult with the state on proposed deletions from the NPL prior to developing the notice of intent to delete. In making a determination to delete a release from the NPL, EPA shall consider, in consultation with the state, whether any of the following criteria has been met:

(i) Responsible parties or other persons have implemented all appropriate response actions required;

(ii) All appropriate Fund-financed response under CERCLA has been implemented, and no further response action by responsible parties is appropriate; or

(iii) The remedial investigation has shown that the release poses no significant threat to public health or the environment and, therefore, taking of remedial measures is not appropriate.

(2) Releases shall not be deleted from the NPL until the state in which the release was located has concurred on the proposed deletion. EPA shall provide the state 30 working days for review of the deletion notice prior to its publication in the FEDERAL REGISTER.

(3) All releases deleted from the NPL are eligible for further Fund-financed remedial actions should future conditions warrant such action. Whenever there is a significant release from a site deleted from the NPL, the site shall be restored to the NPL without application of the HRS.

(4) To ensure public involvement during the proposal to delete a release from the NPL, EPA shall:

(i) Publish a notice of intent to delete in the FEDERAL REGISTER and solicit comment through a public comment period of a minimum of 30 calendar days;

(ii) In a major local newspaper of general circulation at or near the release that is proposed for deletion, publish a notice of availability of the notice of intent to delete;

(iii) Place copies of information supporting the proposed deletion in the information repository, described in § 300.430(c)(2)(iii), at or near the release proposed for deletion. These items shall be available for public inspection and copying; and

(iv) Respond to each significant comment and any significant new data submitted during the comment period and include this response document in the final deletion package.

(5) EPA shall place the final deletion package in the local information repository once the notice of final deletion has been published in the FEDERAL REGISTER.

§ 300.430 Remedial investigation/feasibility study and selection of remedy.

(a) General -- (1) Introduction. The purpose of the remedy selection process is to implement remedies that eliminate, reduce or control risks to human health and the environment. Remedial actions are to be implemented as soon as site data and information make it possible to do so. Accordingly, EPA has established the following program goal, expectations and program management principles to assist in the identification and implementation of appropriate remedial actions.

(i) Program goal. The national goal of the remedy selection process is to select remedies that are protective of human health and the environment, that maintain protection over time and that minimize untreated waste.

(ii) Program management principles. EPA generally shall consider the following general principles of program management during the remedial process:

(A) Sites should generally be remediated in operable units when early actions are necessary or appropriate to achieve significant risk reduction quickly, when phased analysis and response is necessary or appropriate given the size or complexity of the site, or to expedite the completion of total site cleanup.

(B) Operable units, including interim action operable units, should not be inconsistent with nor preclude implementation of the expected final remedy.

(C) Site-specific data needs, the evaluation of alternatives, and the documentation of the selected remedy should reflect the scope and complexity of the site problems being addressed.

(iii) Expectations. EPA generally shall consider the following expectations in developing appropriate remedial alternatives:

(A) EPA expects to use treatment to address the principal threats posed by a site, wherever practicable. Principal threats for which treatment is most likely to be appropriate include liquids, areas contaminated with high concentrations of toxic compounds and highly mobile materials.

(B) EPA expects to use engineering controls, such as containment, for waste that poses a relatively low long-term threat or where treatment is impracticable.

(C) EPA expects to use a combination of methods, as appropriate, to achieve protection of human health and the environment. In appropriate site situations, treatment of the principal threats posed by a site, with priority placed on treating waste that is liquid, highly toxic or highly mobile, will be combined with engineering controls (such as containment) and institutional controls, as appropriate, for treatment residuals and untreated waste.

(D) EPA expects to use institutional controls such as water use and deed restrictions to supplement engineering controls as appropriate for short- and long-term management to prevent or limit exposure to hazardous substances, pollutants or contaminants. Institutional controls may be used during the conduct of the remedial investigation/feasibility study (RI/FS) and implementation of the remedial action and, where necessary, as a component of the completed remedy. The use of institutional controls shall not substitute for active response measures (e.g., treatment and/or containment of source material, restoration of ground waters to their beneficial uses) as the sole remedy unless such active measures are determined not to be practicable, based on the balancing of trade-offs among alternatives that is conducted during the selection of remedy.

(E) EPA expects to consider using innovative technology when such technology offers the potential for comparable or superior treatment performance or implementability, fewer or lesser adverse impacts than other available approaches, or lower costs for similar levels of performance than demonstrated technologies.

(F) EPA expects to return usable ground waters to their beneficial uses wherever practicable, within a timeframe that is reasonable given the particular circumstances of the site. When restoration of ground water to beneficial uses is not practicable, EPA expects to prevent further migration of the plume, prevent exposure to the contaminated ground water, and evaluate further risk reduction.

(2) Remedial investigation/feasibility study. The purpose of the remedial investigation/feasibility study (RI/FS) is to assess site conditions and evaluate alternatives to the extent necessary to select a remedy. Developing and conducting an RI/FS generally includes the following activities: project scoping, data collection, risk assessment, treatability studies, and analysis of alternatives. The scope and timing of these activities should be tailored to the nature and complexity of the problem and the response alternatives being considered.

(b) Scoping. In implementing this section, the lead agency should consider the program goal, program management principles, and expectations contained in this rule. The investigative and analytical studies should be tailored to site circumstances so that the scope and detail of the analysis is appropriate to the complexity of site problems being addressed. During scoping the lead and support agencies shall confer to identify the optimal set and sequence of actions necessary to address site problems. Specifically, the lead agency shall:

(1) Assemble and evaluate existing data on the site, including the results of any removal actions, remedial preliminary assessment and site inspections, and the NPL listing process.

(2) Develop a conceptual understanding of the site based on the evaluation of existing data described in paragraph (b)(1) of this section.

(3) Identify likely response scenarios and potentially applicable technologies and operable units that may address site problems.

(4) Undertake limited data collection efforts or studies where this information will assist in scoping the RI/FS or accelerate response actions, and begin to identify the need for treatability studies, as appropriate.

(5) Identify the type, quality, and quantity of the data that will be collected during the RI/FS to support decisions regarding remedial response activities.

(6) Prepare site-specific health and safety plans that shall specify, at a minimum, employee training and protective equipment, medical surveillance requirements, standard operating procedures, and a contingency plan that conforms with 29 CFR 1910.120(l)(1) and (l)(2).

(7) If natural resources are or may be injured by the release, ensure that state and federal trustees of the affected natural resources have been notified in order that the trustees may initiate appropriate actions, including those identified in Subpart G of this Part. The lead agency shall seek to coordinate necessary assessments, evaluations, investigations, and planning with such state and federal trustees.

(8) Develop sampling and analysis plans that shall provide a process for obtaining data of sufficient quality and quantity to satisfy data needs. Sampling and analysis plans shall be reviewed and approved by EPA. The sampling and analysis plans shall consist of two parts:

(i) The field sampling plan, which describes the number, type, and location of samples and the type of analyses; and

(ii) The quality assurance project plan, which describes policy, organization, and functional activities and the data quality objectives and measures necessary to achieve adequate data for use in selecting the appropriate remedy.

(9) Initiate the identification of potential federal and state ARARs and, as appropriate, other criteria, advisories, or guidance to be considered.

(c) Community relations. (1) The community relations requirements described in this section apply to all remedial activities undertaken pursuant to CERCLA section 104 and to section 106 or section 122 consent orders or decrees, or section 106 administrative orders.

(2) The lead agency shall provide for the conduct of the following community relations activities, to the extent practicable, prior to commencing field work for the remedial investigation:

(i) Conducting interviews with local officials, community residents, public interest groups, or other interested or affected parties, as appropriate, to solicit their concerns and information needs, and to learn how and when citizens would like to be involved in the Superfund process.

(ii) Preparing a formal community relations plan (CRP), based on the community interviews and other relevant information, specifying the community relations activities that the lead agency expects to undertake during the remedial response. The purpose of the CRP is to:

(A) Ensure the public appropriate opportunities for involvement in a wide variety of site-related decisions, including site analysis and characterization, alternatives analysis, and selection of remedy;

(B) Determine, based on community interviews, appropriate activities to ensure such public involvement, and

(C) Provide appropriate opportunities for the community to learn about the site.

(iii) Establishing at least one local information repository at or near the location of the response action. Each information repository should contain a copy of items made available to the public, including information that describes the technical assistance grants application process. The lead agency shall inform interested parties of the establishment of the information repository.

(iv) Informing the community of the availability of technical assistance grants.

(3) For PRP actions, the lead agency shall plan and implement the community relations program at a site. Potentially responsible parties (PRPs) may participate in aspects of the

community relations program at the discretion of and with oversight by the lead agency.

(4) The lead agency may conduct technical discussions involving PRPs and the public. These technical discussions may be held separately from, but contemporaneously with, the negotiations/settlement discussions.

(5) In addition, the following provisions specifically apply to enforcement actions:

(i) Lead agencies entering into an enforcement agreement with de minimis parties under CERCLA section 122(g) or cost recovery settlements under section 122(h) shall publish a notice of the proposed agreement in the FEDERAL REGISTER at least 30 days before the agreement becomes final, as required by section 122(i). The notice must identify the name of the facility and the parties to the proposed agreement and must allow an opportunity for comment and consideration of comments; and

(ii) Where the enforcement agreement is embodied in a consent decree, public notice and opportunity for public comment shall be provided in accordance with 28 CFR 50.7.

(d) Remedial investigation. (1) The purpose of the remedial investigation (RI) is to collect data necessary to adequately characterize the site for the purpose of developing and evaluating effective remedial alternatives. To characterize the site, the lead agency shall, as appropriate, conduct field investigations, including treatability studies, and conduct a baseline risk assessment. The RI provides information to assess the risks to human health and the environment and to support the development, evaluation, and selection of appropriate response alternatives. Site characterization may be conducted in one or more phases to focus sampling efforts and increase the efficiency of the investigation. Because estimates of actual or potential exposures and associated impacts on human and environmental receptors may be refined throughout the phases of the RI as new information is obtained, site characterization activities should be fully integrated with the development and evaluation of alternatives in the feasibility study. Bench- or pilot- scale treatability studies shall be conducted, when appropriate and practicable, to provide additional data for the detailed analysis and to support engineering design of remedial alternatives.

(2) The lead agency shall characterize the nature of and threat posed by the hazardous substances and hazardous materials and gather data necessary to assess the extent to which the release poses a threat to human health or the environment or to support the analysis and design of potential response actions by conducting, as appropriate, field investigations to assess the following factors:

(i) Physical characteristics of the site, including important surface features, soils, geology, hydrogeology, meteorology, and ecology;

(ii) Characteristics or classifications of air, surface water, and ground water;

(iii) The general characteristics of the waste, including quantities, state, concentration, toxicity, propensity to bioaccumulate, persistence, and mobility;

(iv) The extent to which the source can be adequately identified and characterized;

(v) Actual and potential exposure pathways through environmental media;

(vi) Actual and potential exposure routes, for example, inhalation and ingestion; and

(vii) Other factors, such as sensitive populations, that pertain to the characterization of the site or support the analysis of potential remedial action alternatives.

(3) The lead and support agency shall identify their respective potential ARARs related to the location of and contaminants at the site in a timely manner. The lead and support agencies may also, as appropriate, identify other pertinent advisories, criteria or guidance in a timely manner (see § 300.400(g)(3)).

(4) Using the data developed under paragraphs (d)(1) and (2) of this section, the lead agency shall conduct a site-specific baseline risk assessment to characterize the current and potential threats to human health and the environment that may be posed by contaminants migrating to ground water or surface water, releasing to air, leaching through soil, remaining in the soil, and bioaccumulating in the food chain. The results of the baseline risk assessment will help establish acceptable exposure levels for use in developing remedial alternatives in the FS, as described in paragraph (e) of this section.

(e) Feasibility study. (1) The primary objective of the feasibility study (FS) is to ensure that appropriate remedial alternatives are developed and evaluated such that relevant information concerning the remedial action options can be presented to a decision-maker and an appropriate remedy selected. The lead agency may develop a feasibility study to address a specific site problem or the entire site. The development and evaluation of alternatives shall reflect the scope and complexity of the remedial action under consideration and the site problems being addressed. Development of alternatives shall be fully integrated with the site characterization activities of the remedial investigation described in paragraph (d) of this section. The lead agency shall include an alternatives screening step, when needed, to select a reasonable number of alternatives for detailed analysis.

(2) Alternatives shall be developed that protect human health and the environment by recycling waste or by eliminating, reducing, and/or controlling risks posed through each pathway by a site. The number and type of alternatives to be analyzed shall be determined at each site, taking into account the scope, characteristics, and complexity of the site problem that is being addressed. In developing and, as appropriate, screening the alternatives, the lead agency shall:

(i) Establish remedial action objectives specifying contaminants and media of concern, potential exposure pathways, and remediation goals. Initially, preliminary remediation goals are developed based on readily available information, such as chemical-specific ARARs or other reliable information. Preliminary remediation goals should be modified, as necessary, as more information becomes available during the RI/FS. Final remediation goals will be determined when the remedy is selected. Remediation goals shall establish acceptable exposure levels that are protective of human health and the environment and shall be developed by considering the following:

(A) Applicable or relevant and appropriate requirements under federal environmental or state environmental or facility siting laws, if available, and the following factors:

(1) For systemic toxicants, acceptable exposure levels shall represent concentration levels to which the human population, including sensitive subgroups, may be exposed without adverse effect during a lifetime or part of a lifetime, incorporating an adequate margin of safety;

(2) For known or suspected carcinogens, acceptable exposure levels are generally concentration levels that represent an excess upper bound lifetime cancer risk to an individual of between 10^{-4} and 10^{-6} using information on the relationship between dose and response. The 10^{-6} risk level shall be used as the point of departure for determining remediation goals for alternatives when ARARs are not available or are not sufficiently protective because of the presence of multiple contaminants at a site or multiple pathways of exposure;

(3) Factors related to technical limitations such as detection/quantification limits for contaminants;

(4) Factors related to uncertainty; and

(5) Other pertinent information.

(B) Maximum contaminant levels goals (MCLGs), established under the Safe Drinking Water Act, that are set at levels above zero, shall be attained by remedial actions for ground or surface waters that are current or potential sources of drinking water, where the MCLGs are relevant and appropriate under the circumstances of the release based on the factors in § 300.400(g)(2). If an MCLG is determined not to be relevant and appropriate, the corresponding maximum contaminant level (MCL) shall be attained where relevant and appropriate to the circumstances of the release.

(C) Where the MCLG for a contaminant has been set at a level of zero, the MCL promulgated for that contaminant under the Safe Drinking Water Act shall be attained by remedial actions for ground or surface waters that are current or potential sources of drinking water, where the MCL is relevant and appropriate under the circumstances of the release based on the factors in § 300.400(g)(2).

(D) In cases involving multiple contaminants or pathways where attainment of chemical-specific ARARs will result in cumulative risk in excess of 10^{-4}, criteria in paragraph (e)(2)(i)(A) of this section may also be considered when determining the cleanup level to be attained.

(E) Water quality criteria established under sections 303 or 304 of the Clean Water Act shall be attained where relevant and appropriate under the circumstances of the release.

(F) An alternate concentration limit (ACL) may be established in accordance with CERCLA section 121(d)(2)(B)(ii).

(G) Environmental evaluations shall be performed to assess threats to the environment, especially sensitive habitats and critical habitats of species protected under the Endangered Species Act.

(ii) Identify and evaluate potentially suitable technologies, including innovative technologies;

(iii) Assemble suitable technologies into alternative remedial actions.

(3) For source control actions, the lead agency shall develop, as appropriate:

(i) A range of alternatives in which treatment that reduces the toxicity, mobility, or volume of the hazardous substances, pollutants, or contaminants is a principal element. As appropriate, this range shall include an alternative that removes or destroys hazardous substances, pollutants, or contaminants to the maximum extent feasible, eliminating or minimizing, to the degree possible, the need for long-term management. The lead agency also shall develop, as appropriate, other alternatives which, at a minimum, treat the principal threats posed by the site but vary in the degree of treatment employed and the quantities and characteristics of the treatment residuals and untreated waste that must be managed; and

(ii) One or more alternatives that involve little or no treatment, but provide protection of human health and the environment primarily by preventing or controlling exposure to hazardous substances, pollutants, or contaminants, through engineering controls, for example, containment, and, as necessary, institutional controls to protect human health and the environment and to assure continued effectiveness of the response action.

(4) For ground-water response actions, the lead agency shall develop a limited number of remedial alternatives that attain site-specific remediation levels within different restoration time periods utilizing one or more different technologies.

(5) The lead agency shall develop one or more innovative treatment technologies for further consideration if those technologies offer the potential for comparable or superior performance or implementability; fewer or lesser adverse impacts than other available approaches; or lower costs for similar levels of performance than demonstrated treatment technologies.

(6) The no-action alternative, which may be no further action if some removal or remedial action has already occurred at the site, shall be developed.

(7) As appropriate, and to the extent sufficient information is available, the short- and long-term aspects of the following three criteria shall be used to guide the development and screening of remedial alternatives:

(i) Effectiveness. This criterion focuses on the degree to which an alternative reduces toxicity, mobility, or volume through treatment, minimizes residual risks and affords long-term protection, complies with ARARs, minimizes short-term impacts, and how quickly it achieves protection. Alternatives providing significantly less effectiveness than other, more promising alternatives may be eliminated. Alternatives that do not provide adequate protection of human health and the environment shall be eliminated from further consideration.

(ii) Implementability. This criterion focuses on the technical feasibility and availability of the technologies each alternative would employ and the administrative feasibility of implementing the alternative. Alternatives that are technically or administratively infeasible or that would require equipment, specialists, or facilities that are not available within a reasonable period of time may be eliminated from further consideration.

(iii) Cost. The costs of construction and any long-term costs to operate and maintain the alternatives shall be considered. Costs that are grossly excessive compared to the overall effectiveness of alternatives may be considered as one of several factors used to eliminate alternatives. Alternatives providing effectiveness and implementability similar to that of another alternatives by employing a similar method of treatment or engineering control, but at greater cost, may be eliminated.

(8) The lead agency shall notify the support agency of the alternatives that will be evaluated in detail to facilitate the identification of ARARs and, as appropriate, pertinent advisories, criteria or guidance to be considered.

(9) Detailed analysis of alternatives. (i) A detailed analysis shall be conducted on the limited number of alternatives that represent viable approaches to remedial action after evaluation in the screening stage. The lead and support agencies must identify their ARARs related to specific actions in a timely manner and no later than the early stages of the comparative analysis. The lead and support agencies may also, as appropriate, identify other pertinent advisories, criteria or guidance in a timely manner.

(ii) The detailed analysis consists of an assessment of individual alternatives against each of nine evaluation criteria and a comparative analysis that focuses upon the relative performance of each alternative against those criteria.

(iii) Nine criteria for evaluation. The analysis of alternatives under review shall reflect the scope and complexity of site problems and alternatives being evaluated and consider the relative significance of the factors within each criteria. The nine evaluation criteria are as follows:

(A) Overall protection of human health and the environment. Alternatives shall be assessed to determine whether they can adequately protect human health and the environment, in both the short- and long-term, from unacceptable risks posed by hazardous substances, pollutants, or contaminants present at the site by eliminating, reducing, or controlling exposures to levels established during development of remediation goals consistent with § 300.430(e)(2)(i). Overall protection of human health and the environment draws on the assessments of other evaluation criteria, especially long-term effectiveness and permanence, short-term effectiveness, and compliance with ARARs.

(B) Compliance with ARARs. The alternatives shall be assessed to determine whether they attain applicable or relevant and appropriate requirements under federal environmental laws and state environmental or facility siting laws or provide grounds for invoking one of the waivers under paragraph (f)(1)(ii)(C) of this section.

(C) Long-term effectiveness and permanence. Alternatives shall be assessed for the long-term effectiveness and permanence they afford, along with the degree of certainty that the alternative will prove successful. Factors that shall be considered, as appropriate, include the following:

(1) Magnitude of residual risk remaining from untreated waste or treatment residuals remaining at the conclusion of the remedial activities. The characteristics of the residuals should be considered to the degree that they remain hazardous, taking into account their volume, toxicity, mobility, and propensity to bioaccumulate.

(2) Adequacy and reliability of controls such as containment systems and institutional controls that are necessary to manage treatment residuals and untreated waste. This factor addresses in particular the uncertainties associated with land disposal for providing long-term protection from residuals; the assessment of the potential need to replace technical components of the alternative, such as a cap, a slurry wall, or a treatment system; and the potential exposure pathways and risks posed should the remedial action need replacement.

(D) Reduction of toxicity, mobility, or volume through treatment. The degree to which alternatives employ recycling or treatment that reduces toxicity, mobility, or volume shall be assessed, including how treatment is used to address the principal threats posed by the site. Factors that shall be considered, as appropriate, include the following:

(1) The treatment or recycling processes the alternatives employ and materials they will treat;

(2) The amount of hazardous substances, pollutants or contaminants that will be destroyed, treated, or recycled;

(3) The degree of expected reduction in toxicity, mobility, or volume of the waste due to treatment or recycling and the specification of which reduction(s) are occurring;

(4) The degree to which the treatment is irreversible;

(5) The type and quantity of residuals that will remain following treatment, considering the persistence, toxicity,

mobility, and propensity to bioaccumulate of such hazardous substances and their constituents; and

(6) The degree to which treatment reduces the inherent hazards posed by principal threats at the site.

(E) Short-term effectiveness. The short-term impacts of alternatives shall be assessed considering the following:

(1) Short-term risks that might be posed to the community during implementation of an alternative;

(2) Potential impacts on workers during remedial action and the effectiveness and reliability of protective measures;

(3) Potential environmental impacts of the remedial action and the effectiveness and reliability of mitigative measures during implementation; and

(4) Time until protection is achieved.

(F) Implementability. The ease or difficulty of implementing the alternatives shall be assessed by considering the following types of factors as appropriate:

(1) Technical feasibility, including technical difficulties and unknowns associated with the construction and operation of a technology, the reliability of the technology, ease of undertaking additional remedial actions, and the ability to monitor the effectiveness of the remedy.

(2) Administrative feasibility, including activities needed to coordinate with other offices and agencies and the ability and time required to obtain any necessary approvals and permits from other agencies (for off-site actions);

(3) Availability of services and materials, including the availability of adequate off-site treatment, storage capacity, and disposal capacity and services; the availability of necessary equipment and specialists, and provisions to ensure any necessary additional resources; the availability of services and materials; and availability of prospective technologies.

(G) Cost. The types of costs that shall be assessed include the following:

(1) Capital costs, including both direct and indirect costs;

(2) Annual operation and maintenance costs; and

(3) Net present value of capital and O&M costs.

(H) State acceptance. Assessment of state concerns may not be completed until comments on the RI/FS are received but may be discussed, to the extent possible, in the proposed plan issued for public comment. The state concerns that shall be assessed include the following:

(1) The state's position and key concerns related to the preferred alternative and other alternatives; and

(2) State comments on ARARs or the proposed use of waivers.

(I) Community acceptance. This assessment includes determining which components of the alternatives interested persons in the community support, have reservations about, or oppose. This assessment may not be completed until comments on the proposed plan are received.

(f) Selection of remedy -- (1) Remedies selected shall reflect the scope and purpose of the actions being undertaken and how the action relates to long-term, comprehensive response at the site.

(i) The criteria noted in paragraph (e)(9)(iii) are used to select a remedy. These criteria are categorized into three groups.

(A) Threshold criteria. Overall protection of human health and the environment and compliance with ARARs (unless a specific ARAR is waived) are threshold requirements that each alternative must meet in order to be eligible for selection.

(B) Primary balancing criteria. The five primary balancing criteria are long-term effectiveness and permanence; reduction of toxicity, mobility or volume through treatment; short-term effectiveness; implementability; and cost.

(C) Modifying criteria. State and community acceptance are modifying criteria that shall be considered in remedy selection.

(ii) The selection of a remedial action is a two-step process and shall proceed in accordance with § 300.515(e). First, the lead agency, in conjunction with the support agency, identifies a preferred alternative and presents it to the public in a proposed plan, for review and comment. Second, the lead agency shall review the public comments and consult with the state (or support agency) in order to determine if the alternative remains the most appropriate remedial action for the site or site problem. The lead agency, as specified in § 300.515(e), makes the final remedy selection decision, which shall be documented in the ROD. Each remedial alternative selected as a Superfund remedy will employ the criteria as indicated in paragraph (f)(1)(i) of this section to make the following determination:

(A) Each remedial action selected shall be protective of human health and the environment.

(B) On-site remedial actions selected in a ROD must attain those ARARs that are identified at the time of ROD signature or provide grounds for invoking a waiver under § 300.430(f)(1)(ii)(C).

(1) Requirements that are promulgated or modified after ROD signature must be attained (or waived) only when determined to be applicable or relevant and appropriate and necessary to ensure that the remedy is protective of human health and the environment.

(2) Components of the remedy not described in the ROD must attain (or waive) requirements that are identified as applicable or relevant and appropriate at the time the amendment to the ROD or the explanation of significant difference describing the component is signed.

(C) An alternative that does not meet an ARAR under federal environmental or state environmental or facility siting laws may be selected under the following circumstances:

(1) The alternative is an interim measure and will become part of a total remedial action that will attain the applicable or relevant and appropriate federal or state requirement;

(2) Compliance with the requirement will result in greater risk to human health and the environment than other alternatives;

(3) Compliance with the requirement is technically impracticable from an engineering perspective;

(4) The alternative will attain a standard of performance that is equivalent to that required under the otherwise applicable standard, requirement, or limitation through use of another method or approach;

(5) With respect to a state requirement, the state has not consistently applied, or demonstrated the intention to consistently apply, the promulgated requirement in similar circumstances at other remedial actions within the state; or

(6) For Fund-financed response actions only, an alternative that attains the ARAR will not provide a balance between the need for protection of human health and the environment at the site and the availability of Fund monies to respond to other sites that may present a threat to human health and the environment.

(D) Each remedial action selected shall be cost effective, provided that it first satisfies the threshold criteria set forth in §§ 300.430(f)(1)(ii)(A) and (B). Cost-effectiveness is determined by evaluating the following three of the five balancing criteria noted in paragraph 300.430(f)(1)(i)(B) to determine overall effectiveness: long-term effectiveness and permanence, reduction of toxicity, mobility or volume through treatment, and short-term effectiveness. Overall effectiveness is then compared to cost to ensure that the remedy is cost-effective. A remedy shall be cost-effective if its costs are proportional to its overall effectiveness.

(E) Each remedial action shall utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. This requirement shall be fulfilled by selecting the alternative that satisfies paragraph (f)(1)(ii)(A) and (B) of this section and provides the best balance of trade-offs among alternatives in terms of the five primary balancing criteria noted in paragraph (f)(1)(i)(B) of this section. The balancing shall emphasize long-term effectiveness and reduction of toxicity, mobility, or volume through treatment. The balancing shall also consider the preference for treatment as a principal element and the bias against off-site land disposal of untreated waste. In making the determination under this paragraph, the modifying criteria of state acceptance and community acceptance described in paragraph (f)(1)(i)(C) shall also be considered.

(2) The proposed plan. In the first step in the remedy selection process, the lead agency shall identify the alternative that best meets the requirements in paragraph 300.430(f)(1), above, and shall present that alternative to the public in a proposed plan. The lead agency, in conjunction with the support agency and consistent with § 300.515(e), shall prepare a proposed plan that briefly describes the remedial alternatives analyzed by the lead agency, proposes a preferred remedial action alternative, and summarizes the information relied upon to select the preferred alternative. The selection of remedy process for an operable unit may be initiated at any time during the remedial action process. The purpose of the proposed plan is to supplement the RI/FS and provide the public with a reasonable opportunity to comment on the preferred alternative for remedial action, as well as alternative plans under consideration, and to participate in the selection of remedial action at a site. At a minimum, the proposed plan shall:

(i) Provide a brief summary description of the remedial alternatives evaluated in the detailed analysis established under paragraph (e)(9) of this section;

(ii) Identify and provide a discussion of the rationale that supports the preferred alternative;

(iii) Provide a summary of any formal comments received from the support agency; and

(iv) Provide a summary explanation of any proposed waiver identified under paragraph (f)(1)(ii)(C) of this section from an ARAR.

(3) Community relations to support the selection of remedy. (i) The lead agency, after preparation of the proposed plan and review by the support agency, shall conduct the following activities:

(A) Publish a notice of availability and brief analysis of the proposed plan in a major local newspaper of general circulation;

(B) Make the proposed plan and supporting analysis and information available in the administrative record required under Subpart I of this Part;

(C) Provide a reasonable opportunity, not less than 30 calendar days, for submission of written and oral comments on the proposed plan and the supporting analysis and information located in the information repository, including the RI/FS. Upon timely request, the lead agency will extend the public comment period by a minimum of 30 additional days;

(D) Provide the opportunity for a public meeting to be held during the public comment period at or near the site at issue regarding the proposed plan and the supporting analysis and information;

(E) Keep a transcript of the public meeting held during the public comment period pursuant to CERCLA section 117(a) and make such transcript available to the public; and

(F) Prepare a written summary of significant comments, criticisms, and new relevant information submitted during the public comment period and the lead agency response to each issue. This responsiveness summary shall be made available with the record of decision.

(ii) After publication of the proposed plan and prior to adoption of the selected remedy in the record of decision, if new information is made available that significantly changes the basic features of the remedy with respect to scope, performance, or cost, such that the remedy significantly differs from the original proposal in the proposed plan and the supporting analysis and information, the lead agency shall:

(A) Include a discussion in the record of decision of the significant changes and reasons for such changes, if the lead

agency determines such changes could be reasonably anticipated by the public based on the alternatives and other information available in the proposed plan or the supporting analysis and information in the administrative record; or

(B) Seek additional public comment on a revised proposed plan, when the lead agency determines the change could not have been reasonably anticipated by the public based on the information available in the proposed plan or the supporting analysis and information in the administrative record. The lead agency shall, prior to adoption of the selected remedy in the ROD, issue a revised proposed plan, which shall include a discussion of the significant changes and the reasons for such changes, in accordance with the public participation requirements described in paragraph (f)(3)(i) of this section.

(4) Final remedy selection. (i) In the second and final step in the remedy selection process, the lead agency shall reassess its initial determination that the preferred alternative provides the best balance of trade-offs, now factoring in any new information or points of view expressed by the state (or support agency) and community during the public comment period. The lead agency shall consider state (or support agency) and community comments regarding the lead agency's evaluation of alternatives with respect to the other criteria. These comments may prompt the lead agency to modify aspects of the preferred alternative or decide that another alternative provides a more appropriate balance. The lead agency, as specified in § 300.515(e), shall make the final remedy selection decision and document that decision in the ROD.

(ii) If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after initiation of the selected remedial action.

(iii) The process for selection of a remedial action at a federal facility on the NPL, pursuant to CERCLA section 120, shall entail:

(A) Joint selection of remedial action by the head of the relevant department, agency, or instrumentality and EPA; or

(B) If mutual agreement on the remedy is not reached, selection of the remedy is made by EPA.

(5) Documenting the decision. (i) To support the selection of a remedial action, all facts, analyses of facts, and site-specific policy determinations considered in the course of carrying out activities in this section shall be documented, as

appropriate, in a record of decision, in a level of detail appropriate to the site situation, for inclusion in the administrative record required under Subpart I of this Part. Documentation shall explain how the evaluation criteria in paragraph (e)(9)(iii) of this section were used to select the remedy.

(ii) The ROD shall describe the following statutory requirements as they relate to the scope and objectives of the action:

(A) How the selected remedy is protective of human health and the environment, explaining how the remedy eliminates, reduces, or controls exposures to human and environmental receptors;

(B) The federal and state requirements that are applicable or relevant and appropriate to the site that the remedy will attain;

(C) The applicable or relevant and appropriate requirements of other federal and state laws that the remedy will not meet, the waiver invoked, and the justification for invoking the waiver;

(D) How the remedy is cost-effective, i.e., explaining how the remedy provides overall effectiveness proportional to its costs;

(E) How the remedy utilizes permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable; and

(F) Whether the preference for remedies employing treatment which permanently and significantly reduces the toxicity, mobility, or volume of the hazardous substances, pollutants, or contaminants as a principal element is or is not satisfied by the selected remedy. If this preference is not satisfied, the record of decision must explain why a remedial action involving such reductions in toxicity, mobility, or volume was not selected.

(iii) The ROD also shall:

(A) Indicate, as appropriate, the remediation goals, discussed in paragraph (e)(2)(i) of this section, that the remedy is expected to achieve. Performance shall be measured at appropriate locations in the ground water, surface water, soils, air, and other affected environmental media. Measurement relating to the performance of the treatment processes and the engineering controls may also be identified, as appropriate;

(B) Discuss significant changes and the response to comments described in paragraph (f)(3)(i)(F) of this section;

(C) Describe whether hazardous substances, pollutants, or contaminants will remain at the site such that a review of the remedial action under paragraph (f)(4)(ii) of this section no less often than every five years shall be required; and

(D) When appropriate, provide a commitment for further analysis and selection of long-term response measures within an appropriate timeframe.

(6) Community relations when the record of decision is signed. After the ROD is signed, the lead agency shall:

(i) Publish a notice of the availability of the ROD in a major local newspaper of general circulation; and

(ii) Make the record of decision available for public inspection and copying at or near the facility at issue prior to the commencement of any remedial action.

§ 300.435 Remedial design/remedial action, operation and maintenance.

(a) General. The remedial design/remedial action (RD/RA) stage includes the development of the actual design of the selected remedy and implementation of the remedy through construction. A period of operation and maintenance may follow the RA activities.

(b) RD/RA activities. (1) All RD/RA activities shall be in conformance with the remedy selected and set forth in the ROD or other decision document for that site. Those portions of RD/RA sampling and analysis plans describing the QA/QC requirements for chemical and analytical testing and sampling procedures of samples taken for the purpose of determining whether cleanup action levels specified in the ROD are achieved, generally will be consistent with the requirements of § 300.430(b)(8).

(2) During the course of the RD/RA, the lead agency shall be responsible for ensuring that all federal and state requirements that are identified in the ROD as applicable or relevant and appropriate requirements for the action are met. If waivers from any ARARs are involved, the lead agency shall be responsible for ensuring that the conditions of the waivers are met.

(c) Community relations. (1) Prior to the initiation of RD, the lead agency shall review the CRP to determine whether it should be revised to describe further public involvement activities during RD/RA that are not already addressed or provided for in the CRP.

(2) After the adoption of the ROD, if the remedial action or enforcement action taken, or the settlement or consent decree entered into, differs significantly from the remedy selected in the ROD with respect to scope, performance, or cost, the lead agency shall consult with the support agency, as appropriate, and shall either:

(i) Publish an explanation of significant differences when the differences in the remedial or enforcement action, settlement, or consent decree significantly change but do not fundamentally alter the remedy selected in the ROD with respect to scope, performance, or cost. To issue an explanation of significant differences, the lead agency shall:

(A) Make the explanation of significant differences and supporting information available to the public in the administrative record established under § 300.815 and the information repository; and

(B) Publish a notice that briefly summarizes the explanation of significant differences, including the reasons for such differences, in a major local newspaper of general circulation; or

(ii) Propose an amendment to the ROD if the differences in the remedial or enforcement action, settlement, or consent decree fundamentally alter the basic features of the selected remedy with respect to scope, performance, or cost. To amend the ROD, the lead agency, in conjunction with the support agency, as provided in § 300.515(e), shall:

(A) Issue a notice of availability and brief description of the proposed amendment to the ROD in a major local newspaper of general circulation;

(B) Make the proposed amendment to the ROD and information supporting the decision available for public comment;

(C) Provide a reasonable opportunity, not less than 30 calendar days, for submission of written or oral comments on the amendment to the ROD. Upon timely request, the lead agency will extend the public comment period by a minimum of 30 additional days;

(D) Provide the opportunity for a public meeting to be held during the public comment period at or near the facility at issue;

(E) Keep a transcript of comments received at the public meeting held during the public comment period;

(F) Include in the amended ROD a brief explanation of the amendment and the response to each of the significant comments, criticisms, and new relevant information submitted during the public comment period;

(G) Publish a notice of the availability of the amended ROD in a major local newspaper of general circulation; and

(H) Make the amended ROD and supporting information available to the public in the administrative record and information repository prior to the commencement of the remedial action affected by the amendment.

(3) After the completion of the final engineering design, the lead agency shall issue a fact sheet and provide, as appropriate, a public briefing prior to the initiation of the remedial action.

(d) Contractor conflict of interest. (1) For Fund-financed RD/RA and O&M activities, the lead agency shall:

(i) Include appropriate language in the solicitation requiring potential prime contractors to submit information on their status, as well as the status of their subcontractors, parent companies, and affiliates, as potentially responsible parties at the site.

(ii) Require potential prime contractors to certify that, to the best of their knowledge, they and their potential subcontractors, parent companies, and affiliates have disclosed all information described in § 300.435(d)(1)(i) or that no such information exists, and that any such information discovered after submission of their bid or proposal or contract award will be disclosed immediately.

(2) Prior to contract award, the lead agency shall evaluate the information provided by the potential prime contractors and:

(i) Determine whether they have conflicts of interest that could significantly impact the performance of the contract or the liability of potential prime contractors or subcontractors.

(ii) If a potential prime contractor or subcontractor has a conflict of interest that cannot be avoided or otherwise resolved, and using that potential prime contractor or subcontractor to conduct RD/RA or O&M work under a Fund-financed action would not be in the best interests of the state or federal government, an offeror or bidder contemplating use of that prime contractor or subcontractor may be declared nonresponsible or ineligible for award in accordance with appropriate acquisition regulations, and the contract may be awarded to the next eligible offeror or bidder.

(e) Recontracting. (1) If a Fund-financed contract must be terminated because additional work outside the scope of the contract is needed, EPA is authorized to take appropriate steps to continue interim RAs as necessary to reduce risks to public health and the environment. Appropriate steps may include extending an existing contract for a federal-lead RA or amending a cooperative agreement for a state-lead RA. Until the lead agency can reopen the bidding process and recontract to complete the RA, EPA may take such appropriate steps as described above to cover interim work to reduce such risks, where:

(i) Additional work is found to be needed as a result of such unforeseen situations as newly discovered sources, types, or quantities of hazardous substances at a facility; and

(ii) Performance of the complete RA requires the lead agency to rebid the contract because the existing contract does not encompass this newly discovered work.

(2) The cost of such interim actions shall not exceed $2 million.

(f) Operation and maintenance. (1) Operation and maintenance (O&M) measures are initiated after the remedy has achieved the remedial action objectives and remediation goals in the ROD, and is determined to be operational and functional, except for ground or surface water restoration actions covered under § 300.435(f)(4). A state must provide its assurance to assume responsibility for O&M, including, where appropriate, requirements for maintaining institutional controls, under § 300.510(c).

(2) A remedy becomes "operational and functional" either one year after construction is complete, or when the remedy is determined concurrently by the EPA and the state to be functioning properly and is performing as designed, whichever is earlier. EPA may grant extensions to the one-year period, as appropriate.

(3) For Fund-financed remedial actions involving treatment or other measures to restore ground or surface water quality to a level that assures protection of human health and the environment, the operation of such treatment or other measures for a period of up to 10 years after the remedy becomes operational and functional will be considered part of the remedial action. Activities required to maintain the effectiveness of such treatment or measures following the 10-year period, or after remedial action is complete, whichever is earlier, shall be considered O&M. For the purposes of federal funding provided under CERCLA section 104(c)(6), a restoration activity will be considered administratively "complete" when:

(i) Measures restore ground or surface water quality to a level that assures protection of human health and the environment;

(ii) Measures restore ground or surface water to such a point that reductions in contaminant concentrations are no longer significant; or

(iii) Ten years have elapsed, whichever is earliest.

(4) The following shall not be deemed to constitute treatment or other measures to restore contaminated ground or surface water under § 300.435(f)(3):

(i) Source control maintenance measures; and

(ii) Ground or surface water measures initiated for the primary purpose of providing a drinking water supply, not for the purpose of restoring ground water.

§ 300.440 Procedures for planning and implementing off-site response actions [Reserved].

SUBPART F -- STATE INVOLVEMENT IN HAZARDOUS SUBSTANCES RESPONSE

§ 300.500 General.

(a) EPA shall ensure meaningful and substantial state involvement in hazardous substance response as specified in this Subpart. EPA shall provide an opportunity for state participation in removal, pre-remedial, remedial and enforcement response activities. EPA shall encourage states to enter into an EPA/state Superfund Memorandum of Agreement (SMOA) under § 300.505 to increase state involvement and strengthen the EPA/state partnership.

(b) EPA shall encourage states to participate in Fund-financed response in two ways. Pursuant to § 300.515(a), states may either assume the lead through a cooperative agreement for the response action or may be the support agency in EPA-lead remedial response. Section 300.515 sets forth requirements for state involvement in EPA-lead remedial and enforcement response and also addresses comparable requirements for EPA involvement in state-lead remedial and enforcement response. Section 300.520 specifies requirements for state involvement in EPA-lead enforcement negotiations. Section 300.525 specifies requirements for state involvement in removal actions. In addition to the requirements set forth in this subpart, 40 CFR Part 35, Subpart O, "Cooperative Agreements and Superfund state contracts for Superfund Response Actions," contains further requirements for state participation during response.

§ 300.505 EPA/State Superfund Memorandum of Agreement (SMOA).

(a) The SMOA may establish the nature and extent of EPA and state interaction during EPA-lead and state-lead response (Indian tribes meeting the requirements of § 300.515(b) may be treated as states for purposes of this section). EPA shall enter into SMOA discussions if requested by a state. The following may be addressed in a SMOA:

(1) The EPA/state or Indian tribe relationship for removal, pre-remedial, remedial and enforcement response, including a description of the roles and the responsibilities of each.

(2) The general requirements for EPA oversight. Oversight requirements may be more specifically defined in cooperative agreements.

(3) The general nature of lead and support agency interaction regarding the review of key documents and/or decision points in removal, pre-remedial, remedial and enforcement response. The requirements for EPA and state review of each other's key

documents when each is serving as the support agency shall be equivalent to the extent practicable. Review times agreed to in the SMOA must also be documented in site-specific cooperative agreements or Superfund state contracts in order to be binding.

(4) Procedures for modification of the SMOA (e.g., if EPA and a state agree that the lead and support agency roles and responsibilities have changed, or if modifications are required to achieve desired goals).

(b) The SMOA and any modifications thereto shall be executed by the EPA Regional Administrator and the head of the state agency designated as lead agency for state implementation of CERCLA.

(c) Site-specific agreements entered into pursuant to section 104(d)(1) of CERCLA shall be developed in accordance with 40 CFR Part 35, Subpart O. The SMOA shall not supersede such agreements.

(d)(1) EPA and the state shall consult annually to determine priorities and make lead and support agency designations for removal, pre-remedial and remedial and enforcement response to be conducted during the next fiscal year and to discuss future priorities and long-term requirements for response. These consultations shall include the exchange of information on both Fund- and non-Fund-financed response activities. The SMOA may describe the timeframe and process for the EPA/state consultation.

(2) The following activities shall be discussed in the EPA/state consultations established in the SMOA, or otherwise initiated and documented in writing in the absence of a SMOA, on a site-specific basis with EPA and the state identifying the lead agency for each response action discussed:

(i) Pre-remedial response actions, including preliminary assessments and site inspections;

(ii) Hazard Ranking System scoring and NPL listing and deletion activities;

(iii) Remedial phase activities, including remedial investigation/feasibility study, identification of potential applicable or relevant and appropriate requirements (ARARs) under federal and state environmental laws and, as appropriate, other advisories, criteria or guidance to be considered (TBCs), proposed plan, ROD, remedial design, remedial action, and operation and maintenance;

(iv) Potentially responsible party (PRP) searches, notices to PRPs, response to information requests, PRP negotiations, oversight of PRPs, other enforcement actions pursuant to state law and activities where the state provides support to EPA;

(v) Compilation and maintenance of the administrative record for selection of a response action as required by Subpart I of this Part;

(vi) Related site support activities;

(vii) State ability to share in the cost and timing of payments; and

(viii) General CERCLA implementation activities.

(3) If a state is designated as the lead agency for a non-Fund-financed action at an NPL site, the SMOA shall be supplemented by site-specific enforcement agreements between EPA and the state which specify schedules and EPA involvement.

(4) In the absence of a SMOA, EPA and the state shall comply with the requirements in § 300.515(h). If the SMOA does not address all of the requirements specified in § 300.515(h), EPA and the state shall comply with any unaddressed requirements in that section.

§ 300.510 State assurances.

(a) A Fund-financed remedial action undertaken pursuant to CERCLA section 104(a) cannot proceed unless a state provides its applicable required assurances. The assurances must be provided by the state prior to the initiation of remedial action pursuant to a Superfund state contract for EPA-lead (or political subdivision-lead) remedial action or pursuant to a cooperative agreement for a state-lead remedial action. The SMOA may not be used for this purpose. Federally recognized Indian tribes are not required to provide CERCLA section 104(c)(3) assurances for Fund-financed response actions. Further requirements pertaining to state, political subdivision, and federally recognized Indian tribe involvement in CERCLA response are found in 40 CFR Part 35, Subpart O.

(b)(1) The state is not required to share in the cost of state- or EPA-lead Fund-financed removal actions (including remedial planning activities associated with remedial actions) conducted pursuant to CERCLA section 104 unless the facility was operated by the state or a political subdivision thereof at the time of disposal of hazardous substances therein and a remedial action is ultimately undertaken at the site. Such remedial planning activities include, but are not limited to, remedial investigations (RI), feasibility studies (FS), and remedial design (RD). States shall be required to share 50 percent, or greater, in the cost of all Fund-financed response actions if the facility was publicly operated at the time of the disposal of hazardous substances. For other facilities, except federal facilities, the state shall be required to share 10 percent of the cost of the remedial action.

(2) CERCLA section 104(c)(5) provides that EPA shall grant a state credit for reasonable, documented, direct, out-of-pocket, non-federal expenditures subject to the limitations specified in CERCLA section 104(c)(5). For a state to apply credit toward its cost share, it must enter into a cooperative agreement or Superfund state contract. The state must submit as soon as possible, but no later than at the time CERCLA section 104 assurances are provided for a remedial action, its accounting of eligible credit expenditures for EPA verification. Additional credit requirements are contained in 40 CFR Part 35, Subpart O.

(3) Credit may be applied to a state's future cost share requirements at NPL sites for response expenditures or obligations incurred by the state or a political subdivision from January 1, 1978, to December 11, 1980, and for the remedial action expenditures incurred only by the state after October 17, 1986.

(4) Credit that exceeds the required cost share at the site for which the credit is granted may be transferred to another site to offset a state's required remedial action cost share.

(c)(1) Prior to a Fund-financed remedial action, the state must also provide its assurance in accordance with CERCLA section 104(c)(3)(A) to assume responsibility for operation and maintenance of implemented remedial actions for the expected life of such actions. In addition, when appropriate, as part of the O&M assurance, the state must assure that any institutional controls implemented as part of the remedial action at a site are in place, reliable, and will remain in place after the initiation of O&M. The state and EPA shall consult on a plan for operation and maintenance prior to the initiation of a remedial action.

(2) After a joint EPA/state inspection of the implemented Fund-financed remedial action under § 300.515(g), EPA may share, for a period of up to one year, in the cost of the operation of the remedial action to ensure that the remedy is operational and functional. In the case of the restoration of ground or surface water, EPA shall share in the cost of the state's operation of ground- or surface-water restoration remedial actions as specified in § 300.435(f)(3).

(d) In accordance with CERCLA sections 104(c)(3)(B) and 121(d)(3), if the remedial action requires off-site storage, destruction, treatment, or disposal, the state must provide its assurance before the remedial action begins on the availability of a hazardous waste disposal facility that is in compliance with CERCLA section 121(d)(3) and is acceptable to EPA.

(e)(1) In accordance with CERCLA section 104(c)(9), EPA shall not provide any remedial action pursuant to CERCLA section 104 until the state in which the release occurs enters into a cooperative agreement or Superfund state contract with EPA providing assurances deemed adequate by EPA that the state will assure the availability of hazardous waste treatment or disposal facilities which:

(i) have adequate capacity for the destruction, treatment or secure disposition of all hazardous wastes that are reasonably expected to be generated within the state during the 20-year period following the date of such cooperative agreement or Superfund state contract and to be destroyed, treated or disposed;

(ii) are within the state, or outside the state in accordance with an interstate agreement or regional agreement or authority,

(iii) are acceptable to EPA; and

(iv) are in compliance with the requirements of Subtitle C of the Solid Waste Disposal Act.

(2) This rule does not address whether or not Indian tribes are states for purposes of this paragraph (e).

(f) EPA may determine that an interest in real property must be acquired in order to conduct a response action. As a general rule, the state in which the property is located must agree to acquire and hold the necessary property interest, including any interest in acquired property that is needed to ensure the reliability of institutional controls restricting the use of that property. If it is necessary for the United States government to acquire the interest in property to permit implementation of the response, the state must accept transfer of the acquired interest on or before the completion of the response action.

§ 300.515 Requirements for state involvement in remedial and enforcement response.

(a) General. (1) States are encouraged to undertake actions authorized under Subpart E. Section 104(d)(1) of CERCLA authorizes EPA to enter into cooperative agreements or contracts with a state, political subdivision, or a federally recognized Indian tribe to carry out Fund-financed response actions authorized under CERCLA, when EPA determines that the state, the political subdivision, or federally recognized Indian tribe has the capability to undertake such actions. EPA will use a cooperative agreement to transfer funds to those entities to undertake Fund-financed response activities. The requirements for states, political subdivisions, or Indian tribes to receive funds as a lead or support agency for response are addressed at 40 CFR Part 35 Subpart O.

(2) For EPA-lead Fund-financed remedial planning activities, including, but not limited to, remedial investigations, feasibility studies, and remedial designs, the state agency acceptance of the support agency role during an EPA-lead response shall be documented in a letter, SMOA, or cooperative agreement. Superfund state contracts are unnecessary for this purpose.

(3) Cooperative agreements and Superfund state contracts are only appropriate for non-Fund-financed response actions if a state intends to seek credit for remedial action expenses under § 300.510.

(b) Indian tribe involvement during response. To be afforded substantially the same treatment as states under section 104 of CERCLA, the governing body of the Indian tribe must:

(1) Be federally recognized; and

(2) Have a tribal governing body that is currently performing governmental functions to promote the health, safety and welfare of the affected population or to protect the environment within a defined geographic area; and

(3) Have jurisdiction over a site at which Fund-financed response, including preremedial activities, is contemplated.

(c) State involvement in PA/SI and National Priorities List process. EPA shall ensure state involvement in the listing and deletion process by providing states opportunities for review, consultation, or concurrence specified in this section.

(1) EPA shall consult with states as appropriate on the information to be used in developing HRS scores for releases.

(2) EPA shall, to the extent feasible, provide the state 30 working days to review releases which were scored by EPA and which will be considered for placement on the National Priorities List (NPL).

(3) EPA shall provide the state 30 working days to review and concur on the Notice of Intent to Delete a release from the NPL. Section 300.425 describes the EPA/state consultation and concurrence process for deleting releases from the NPL.

(d) State involvement in RI/FS process. A key component of the EPA/state partnership shall be the communication of potential federal and state ARARs and, as appropriate, other pertinent advisories, criteria or guidance to be considered (TBCs).

(1) In accordance with §§ 300.400(g) and 300.430, the lead and support agencies shall identify their respective potential ARARs and communicate them to each other in a timely manner, i.e., no later than the early stages of the comparative analysis described in § 300.430(e)(9), such that sufficient time is available for the lead agency to consider and incorporate all potential ARARs without inordinate delays and duplication of effort. The lead and support agencies may also identify TBCs and communicate them in a timely manner.

(2) When a state and EPA have entered into a SMOA, the SMOA may specify a consultation process which requires the lead agency to solicit potential ARARs at specified points in the remedial planning and remedy selection processes. At a minimum, the SMOA shall include the points specified in § 300.515(h)(2). The SMOA shall specify timeframes for support agency response to lead agency requests to ensure that potential ARARs are identified and communicated in a timely manner. Such timeframes must also be documented in site-specific agreements. The SMOA may also discuss identification and communication of TBCs.

(3) If EPA in its statement of a proposed plan intends to waive any state-identified ARARs, or does not agree with the state that a certain state standard is an ARAR, it shall formally notify the state when it submits the RI/FS report for state review or responds to the state's submission of the RI/FS report.

(4) EPA shall respond to state comments on waivers from or disagreements about state ARARs, as well as the preferred alternative when making the RI/FS report and proposed plan available for public comment.

(e) State involvement in selection of remedy. (1) Both EPA and the state shall be involved in preliminary discussions of the alternatives addressed in the FS prior to preparation of the proposed plan and ROD. At the conclusion of the RI/FS, the lead agency, in conjunction with the support agency, shall develop a proposed plan. The support agency shall have an opportunity to comment on the plan. The lead agency shall publish a notice of availability of the RI/FS report and a brief analysis of the proposed plan pursuant to §§ 300.430(e) and (f). Included in the proposed plan shall be a statement that the lead and support agencies have reached agreement or, where this is not the case, a statement explaining the concerns of the support agency with the lead agency's proposed plan. The state may not publish a proposed plan that EPA has not approved. EPA may assume the lead from the state if agreement cannot be reached.

(2)(i) EPA and the state shall identify, at least annually, sites for which RODs will be prepared during the next fiscal year, in accordance with § 300.515(h)(1). For all EPA-lead sites, EPA shall prepare the ROD and provide the state an opportunity to concur with the recommended remedy. For Fund-financed state-lead sites, EPA and the state shall designate sites, in a site-specific agreement, for which the state shall prepare the ROD and seek EPA's concurrence and adoption of the remedy specified therein, and sites for which EPA shall prepare the ROD and seek the state's concurrence. EPA and the state may designate sites for which the state shall prepare the ROD for a non-Fund-financed state-lead enforcement response actions (i.e., actions taken under state law) at an NPL site. The state may seek EPA's concurrence in the remedy specified therein. Either EPA or the state may choose not to designate a site as state-lead.

(ii) State concurrence on a ROD is not a prerequisite to EPA's selecting a remedy, i.e., signing a ROD, nor is EPA's concurrence a prerequisite to a state selecting a remedy at a non-Fund-financed state-lead enforcement site under state law. Unless EPA's Assistant Administrator for Solid Waste and Emergency Response or Regional Administrator concurs in writing with a state-prepared ROD, EPA shall not be deemed to have approved the state decision. A state may not proceed with a Fund-financed response action unless EPA has first concurred in and adopted the ROD. Section 300.510(a) specifies limitations on EPA proceeding with a remedial action without state assurances.

(iii) The lead agency shall provide the support agency with a copy of the signed ROD for remedial actions to be conducted pursuant to CERCLA.

(iv) On state-lead sites identified for EPA concurrence, the state generally shall be expected to maintain its lead agency status through the completion of the remedial action.

(f) Enhancement of remedy. (1) A state may ask EPA to make changes in or expansions of a remedial action selected under Subpart E.

(A) If EPA finds that the proposed change or expansion is necessary and appropriate to the EPA-selected remedial action, the remedy may be modified (consistent with § 300.435(c)(2)) and any additional costs paid as part of the remedial action.

(B) If EPA finds that the proposed change or expansion is not necessary to the selected remedial action, but would not conflict or be inconsistent with the EPA-selected remedy, EPA may agree to integrate the proposed change or expansion into the planned CERCLA remedial work if:

(i) the state agrees to fund the entire additional cost associated with the change or expansion; and

(ii) the state agrees to assume the lead for supervising the state-funded component of the remedy or, if EPA determines that

the state-funded component cannot be conducted as a separate phase or activity, for supervising the remedial design and construction of the entire remedy.

(2) Where a state does not concur in a remedial action secured by EPA under CERCLA section 106, and the state desires to have the remedial action conform to an ARAR that has been waived under § 300.430(f)(1)(ii)(C), a state may seek to have that remedial action so conform, in accordance with the procedures set out in CERCLA section 121(f)(2).

(g) State involvement in remedial design/remedial action. The extent and nature of state involvement during remedial design and remedial action shall be specified in site-specific cooperative agreements or Superfund state contracts, consistent with 40 CFR Part 35, Subpart O. For Fund-financed remedial actions, the lead and support agencies shall conduct a joint inspection at the conclusion of construction of the remedial action to determine that the remedy has been constructed in accordance with the ROD and with the remedial design.

(h) Requirements for state involvement in absence of SMOA. In the absence of a SMOA, EPA and the state shall comply with the requirements in § 300.515(h). If the SMOA does not address all of the requirements specified in § 300.515(h), EPA and the state shall comply with any unaddressed requirements in that section.

(1) Annual consultations. EPA shall conduct consultations with states at least annually to establish priorities and identify and document in writing the lead for remedial and enforcement response for each NPL site within the state for the upcoming fiscal year. States shall be given the opportunity to participate in long-term planning efforts for remedial and enforcement response during these annual consultations.

(2) Identification of ARARs and TBCs. The lead and support agencies shall discuss potential ARARs during the scoping of the RI/FS. The lead agency shall request potential ARARs from the support agency no later than the time that the site characterization data are available. The support agency shall communicate in writing those potential ARARs to the lead agency within 30 working days of receipt of the lead agency request for these ARARs. The lead and support agencies may also discuss and communicate other pertinent advisories, criteria or guidance to-be-considered (TBCs). After the initial screening of alternatives has been completed but prior to initiation of the comparative analysis conducted during the detailed analysis phase of the FS, the lead agency shall request that the support agency communicate any additional requirements that are applicable or relevant and appropriate to the alternatives contemplated within 30 working days of receipt of this request. The lead agency shall

thereafter consult the support agency to ensure that identified ARARs and TBCs are updated as appropriate.

(3) Support agency review of lead agency documents. The lead agency shall provide the support agency an opportunity to review and comment on the RI/FS, proposed plan, ROD, and remedial design, and any proposed determinations on potential ARARs and TBCs. The support agency shall have a minimum of 10 working days and a maximum of 15 working days to provide comments to the lead agency on the RI/FS, ROD, ARAR/TBC determinations, and remedial design. The support agency shall have a minimum of five working days and a maximum of 10 working days to comment on the proposed plan.

(i) Administrative record requirements. The state, where it is the lead agency for a Fund-financed site, shall compile and maintain the administrative record for selection of a response action under Subpart I of this Part unless specified otherwise in the SMOA.

§ 300.520 State involvement in EPA-lead enforcement negotiations.

(a) EPA shall notify states of response action negotiations to be conducted by EPA with potentially responsible parties during each fiscal year.

(b) The state must notify EPA of such negotiations in which it intends to participate.

(c) The state is not foreclosed from signing a consent decree if it does not participate substantially in the negotiations.

§ 300.525 State involvement in removal actions.

(a) States may undertake Fund-financed removal actions pursuant to a cooperative agreement with EPA. State-lead removal actions taken pursuant to cooperative agreements must be conducted in accordance with § 300.415 on removal actions, and 40 CFR Part 35, Subpart O.

(b) States are not required under section 104(c)(3) of CERCLA to share in the cost of a Fund-financed removal action, unless the removal is conducted at an NPL site that was operated by a state or political subdivision at the time of disposal of hazardous substances therein and a Fund-financed remedial action is ultimately undertaken at the site. In this situation, states are required to share, 50 percent or greater, in the cost of all removal (including remedial planning) and remedial action costs at the time of the remedial action.

(c) States are encouraged to provide for post-removal site control as discussed in § 300.415(k) for all Fund-financed removal actions.

(d) States shall be responsible for identifying potential state ARARs for all Fund-financed removal actions and for providing such ARARs to EPA in a timely manner for all EPA-lead removal actions.

(e) EPA shall consult with a state on all removal actions to be conducted in that state.

SUBPART G -- TRUSTEES FOR NATURAL RESOURCES

§ 300.600 Designation of federal trustees.

(a) The President is required to designate in the National Contingency Plan those federal officials who are to act on behalf of the public as trustees for natural resources. Federal officials so designated will act pursuant to section 107(f) of CERCLA and section 311(f)(5) of the Clean Water Act. Natural resources include:

(1) Natural resources over which the United States has sovereign rights; and

(2) Natural resources within the territorial sea, contiguous zone, exclusive economic zone, and outer continental shelf belonging to, managed by, held in trust by, appertaining to, or otherwise controlled (hereinafter referred to as "managed or protected") by the United States.

(b) The following individuals shall be the designated trustee(s) for general categories of natural resources. They are authorized to act pursuant to section 107(f) of CERCLA or section 311(f)(5) of the Clean Water Act when there is injury to, destruction of, loss of, or threat to natural resources as a result of a release of a hazardous substance or a discharge of oil. Notwithstanding the other designations in this section, the Secretaries of Commerce and the Interior shall act as trustees of those resources subject to their respective management or protection.

(1) Secretary of Commerce. The Secretary of Commerce shall act as trustee for natural resources managed or protected by the Department of Commerce or by other federal agencies and that are found in or under waters navigable by deep draft vessels, in or under tidally influenced waters, or waters of the contiguous zone, the exclusive economic zone, and the outer continental shelf, and in upland areas serving as habitat for marine mammals and other protected species. However, before the Secretary takes an action with respect to an affected resource under the management or protection of another federal agency, he shall, whenever practicable, seek to obtain the concurrence of that other federal agency. Examples of the Secretary's trusteeship include marine fishery resources and their supporting ecosystems; anadromous fish; certain endangered species and marine mammals; and National Marine Sanctuaries and Estuarine Research Reserves.

(2) Secretary of the Interior. The Secretary of the Interior shall act as trustee for natural resources managed or protected by the Department of the Interior. Examples of the Secretary's trusteeship include migratory birds; certain anadromous fish,

endangered species, and marine mammals; federally owned minerals; and certain federally managed water resources. The Secretary of the Interior shall also be trustee for those natural resources for which an Indian tribe would otherwise act as trustee in those cases where the United States acts on behalf of the Indian tribe.

(3) Secretary for the land managing agency. For natural resources located on, over, or under land administered by the United States, the trustee shall be the head of the Department in which the land managing agency is found. The trustees for the principal federal land managing agencies are the Secretaries of the Department of the Interior, the Department of Agriculture, the Department of Defense, and the Department of Energy.

(4) Head of authorized agencies. For natural resources located in the United States but not otherwise described in this section, the trustee shall be the head of the federal agency or agencies authorized to manage or protect those resources.

§ 300.605 State trustees.

State trustees shall act on behalf of the public as trustees for natural resources within the boundary of a state or belonging to, managed by, controlled by, or appertaining to such state. For the purposes of Subpart G of this Part, the definition of the term "state" does not include Indian tribes.

§ 300.610 Indian tribes.

The tribal chairmen (or heads of the governing bodies) of Indian tribes, as defined in § 300.5, or a person designated by the tribal officials, shall act on behalf of the Indian tribes as trustees for the natural resources belonging to, managed by, controlled by, or appertaining to such Indian tribe, or held in trust for the benefit of such Indian tribe, or belonging to a member of such Indian tribe, if such resources are subject to a trust restriction on alienation. When the tribal chairman or head of the tribal governing body designates another person as trustee, the tribal chairman or head of the tribal governing body shall notify the President of such designation. Such officials are authorized to act when there is injury to, destruction of, loss of, or threat to natural resources as a result of a release of a hazardous substance.

§ 300.615 Responsibilities of trustees.

(a) Where there are multiple trustees, because of coexisting or contiguous natural resources or concurrent jurisdictions, they should coordinate and cooperate in carrying out these responsibilities.

(b) Trustees are responsible for designating to the RRTs, for inclusion in the Regional Contingency Plan, appropriate contacts to receive notifications from the OSCs/RPMs of potential injuries to natural resources.

(c) Upon notification or discovery of injury to, destruction of, loss of, or threat to natural resources, trustees may, pursuant to section 107(f) of CERCLA or section 311(f)(5) of the Clean Water Act, take the following or other actions as appropriate:

(1) Conduct a preliminary survey of the area affected by the discharge or release to determine if trust resources under their jurisdiction are, or potentially may be, affected;

(2) Cooperate with the OSC/RPM in coordinating assessments, investigations, and planning;

(3) Carry out damage assessments; or

(4) Devise and carry out a plan for restoration, rehabilitation, replacement, or acquisition of equivalent natural resources. In assessing damages to natural resources, the federal, state, and Indian tribe trustees have the option of following the procedures for natural resource damage assessments located at 43 CFR Part 11.

(d) The authority of federal trustees includes, but is not limited to the following actions:

(1) Requesting that the Attorney General seek compensation from the responsible parties for the damages assessed and for the costs of an assessment and of restoration planning; and

(2) Participating in negotiations between the United States and potentially responsible parties (PRPs) to obtain PRP-financed or PRP-conducted assessments and restorations for injured resources or protection for threatened resources and to agree to covenants not to sue, where appropriate.

(3) Requiring, in consultation with the lead agency, any person to comply with the requirements of CERCLA section 104(e) regarding information gathering and access.

(e) Actions which may be taken by any trustee pursuant to section 107(f) of CERCLA or section 311(f)(5) of the Clean Water Act include, but are not limited to, any of the following:

(1) Requesting that an authorized agency issue an administrative order or pursue injunctive relief against the parties responsible for the discharge or release; or

(2) Requesting that the lead agency remove, or arrange for the removal of, or provide for remedial action with respect to, any hazardous substances from a contaminated medium pursuant to section 104 of CERCLA.

SUBPART H -- PARTICIPATION BY OTHER PERSONS

§ 300.700 Activities by other persons.

(a) General. Any person may undertake a response action to reduce or eliminate a release of a hazardous substance, pollutant, or contaminant.

(b) Summary of CERCLA authorities. The mechanisms available to recover the costs of response actions under CERCLA are, in summary:

(1) Section 107(a), wherein any person may receive a court award of his or her response costs, plus interest, from the party or parties found to be liable;

(2) Section 111(a)(2), wherein a private party, a potentially responsible party pursuant to a settlement agreement, or certain foreign entities may file a claim against the Fund for reimbursement of response costs;

(3) Section 106(b), wherein any person who has complied with a section 106(a) order may petition the Fund for reimbursement of reasonable costs, plus interest; and

(4) Section 123, wherein a general purpose unit of local government may apply to the Fund under 40 CFR Part 310 for reimbursement of the costs of temporary emergency measures that are necessary to prevent or mitigate injury to human health or the environment associated with a release.

(c) Section 107(a) cost recovery actions. (1) Responsible parties shall be liable for all response costs incurred by the United States government or a State or an Indian tribe not inconsistent with the NCP.

(2) Responsible parties shall be liable for necessary costs of response actions to releases of hazardous substances incurred by any other person consistent with the NCP.

(3) For the purpose of cost recovery under section 107(a)(4)(B) of CERCLA:

(i) A private party response action will be considered "consistent with the NCP" if the action, when evaluated as a whole, is in substantial compliance with the applicable requirements in subsections (5) and (6), and results in a CERCLA-quality cleanup;

(ii) Any response action carried out in compliance with the terms of an order issued by EPA pursuant to section 106 of

CERCLA, or a consent decree entered into pursuant to section 122 of CERCLA, will be considered "consistent with the NCP."

(4) Actions under § 300.700(c)(1) will not be considered "inconsistent with the NCP," and actions under § 300.700(c)(2) will not be considered not "consistent with the NCP," based on immaterial or insubstantial deviations from the provisions of 40 CFR Part 300.

(5) The following provisions of this Part are potentially applicable to private party response actions:

(i) Section 300.150 (on worker health and safety);

(ii) Section 300.160 (on documentation and cost recovery);

(iii) Section 300.400(c)(1), (4), (5), and (7) (on determining the need for a Fund-financed action), (e) (on permit requirements) except that the permit waiver does not apply to private party response actions; and (g) (on identification of ARARs) except that applicable requirements of federal or state law may not be waived by a private party;

(iv) Section 300.405(b), (c), and (d) (on reports of releases to the NRC);

(v) Section 300.410 (on removal site evaluation) except paragraphs (e)(5) and (6);

(vi) Section 300.415 (on removal actions) except paragraphs (a)(2), (b)(2)(vii), (b)(5), and (f); and including § 300.415(i) with regard to meeting ARARs where practicable, except that private party removal actions must always comply with the requirements of applicable law;

(vii) Section 300.420 (on remedial site evaluation);

(viii) Section 300.430 (on RI/FS and selection of remedy) except paragraph (f)(1)(ii)(C)(6) and that applicable requirements of federal or State law may not be waived by a private party;

(ix) Section 300.435 (on RD/RA and operation and maintenance).

(6) Private parties undertaking response actions should provide an opportunity for public comment concerning the selection of the response action based on the provisions set out below, or based on substantially equivalent state and local requirements. The following provisions of this Part regarding public participation are potentially applicable to private party

response actions, with the exception of administrative record and information repository requirements stated therein:

(i) Section 300.155 (on public information and community relations);

(ii) Section 300.415(m)(on community relations during removal actions);

(iii) Section 300.430(c)(on community relations during RI/FS) except paragraph (5);

(iv) Section 300.430(f)(2), (3), and (6)(on community relations during selection of remedy); and

(v) Section 300.435(c) (on community relations during RD/RA and operation and maintenance).

(7) When selecting the appropriate remedial action, the methods of remedying releases listed in Appendix D of this Part may also be appropriate to a private party response action.

(8) Except for actions taken pursuant to CERCLA sections 104 or 106 or response actions for which reimbursement from the Fund will be sought, any action to be taken by the lead agency listed in paragraphs (c)(5) through (c)(7) may be taken by the person carrying out the response action.

(d) Section 111(a)(2) claims. (1) Persons, other than those listed in paragraphs (d)(1)(i) through (iii) of this section, may be able to receive reimbursement of response costs by means of a claim against the Fund. The categories of persons excluded from pursuing this claims authority are:

(i) Federal government;

(ii) State governments, and their political subdivisions, unless they are potentially responsible parties covered by an order or consent decree pursuant to section 122 of CERCLA; and

(iii) Persons operating under a procurement contract or an assistance agreement with the United States with respect to matters covered by that contract or assistance agreement, unless specifically provided therein.

(2) In order to be reimbursed by the Fund, an eligible person must notify the Administrator of EPA or designee prior to taking a response action and receive prior approval, i.e., "preauthorization," for such action.

(3) Preauthorization is EPA's prior approval to submit a claim against the Fund for necessary response costs incurred as a

result of carrying out the NCP. All applications for preauthorization will be reviewed to determine whether the request should receive priority for funding. EPA, in its discretion, may grant preauthorization of a claim. Preauthorization will be considered only for:

(i) Removal actions pursuant to § 300.415;

(ii) CERCLA section 104(b) activities;

(iii) Remedial actions at National Priorities List sites pursuant to § 300.435.

(4) To receive EPA's prior approval, the eligible person must:

(i) Demonstrate technical and other capabilities to respond safely and effectively to releases of hazardous substances, pollutants, or contaminants; and

(ii) Establish that the action will be consistent with the NCP in accordance with the elements set forth in paragraphs (c)(5) through (8) of this section.

(5) EPA will grant preauthorization to a claim by a party it determines to be potentially liable under section 107 of CERCLA only in accordance with an order issued pursuant to section 106 of CERCLA, or a settlement with the federal government in accordance with section 122 of CERCLA.

(6) Preauthorization does not establish an enforceable contractual relationship between EPA and the claimant.

(7) Preauthorization represents EPA's commitment that if funds are appropriated for response actions, the response action is conducted in accordance with the preauthorization decision document, and costs are reasonable and necessary, reimbursement will be made from the Superfund, up to the maximum amount provided in the preauthorization decision document.

(8) For a claim to be awarded under section 111 of CERCLA, EPA must certify that the costs were necessary and consistent with the preauthorization decision document.

(e) Section 106(b) petition. Subject to conditions specified in CERCLA section 106(b), any person who has complied with an order issued after October 16, 1986 pursuant to section 106(a) of CERCLA, may seek reimbursement for response costs incurred in complying with that order unless the person has waived that right.

(f) Section 123 reimbursement to local governments. Any general purpose unit of local government for a political subdivision that is affected by a release may receive reimbursement for the costs of temporary emergency measures necessary to prevent or mitigate injury to human health or the environment subject to the conditions set forth in 40 CFR Part 310. Such reimbursement may not exceed $25,000 for a single response.

(g) Release from liability. Implementation of response measures by potentially responsible parties or by any other person does not release those parties from liability under section 107(a) of CERCLA, except as provided in a settlement under section 122 of CERCLA or a federal court judgment.

SUBPART I -- ADMINISTRATIVE RECORD FOR SELECTION OF RESPONSE ACTION

§ 300.800 Establishment of an administrative record.

(a) General requirement. The lead agency shall establish an administrative record that contains the documents that form the basis for the selection of a response action. The lead agency shall compile and maintain the administrative record in accordance with this subpart.

(b) Administrative records for federal facilities. (1) If a federal agency other than EPA is the lead agency for a federal facility, the federal agency shall compile and maintain the administrative record for the selection of the response action for that facility in accordance with this subpart. EPA may furnish documents which the federal agency shall place in the administrative record file to ensure that the administrative record includes all documents that form the basis for the selection of the response action.

(2) EPA or the U.S. Coast Guard shall compile and maintain the administrative record when it is the lead agency for a federal facility.

(3) If EPA is involved in the selection of the response action at a federal facility on the NPL, the federal agency acting as the lead agency shall provide EPA with a copy of the index of documents included in the administrative record file, the RI/FS workplan, the RI/FS released for public comment, the proposed plan, any public comments received on the RI/FS and proposed plan, and any other documents EPA may request on a case-by-case basis.

(c) Administrative record for state-lead sites. If a state is the lead agency for a site, the state shall compile and maintain the administrative record for the selection of the response action for that site in accordance with this subpart. EPA may require the state to place additional documents in the administrative record file to ensure that the administrative record includes all documents which form the basis for the selection of the response action. The state shall provide EPA with a copy of the index of documents included in the administrative record file, the RI/FS workplan, the RI/FS released for public comment, the proposed plan, any public comments received on the RI/FS and proposed plan, and any other documents EPA may request on a case-by-case basis.

(d) Applicability. This subpart applies to all response actions taken under section 104 of CERCLA or sought, secured, or ordered administratively or judicially under section 106 of CERCLA, as follows:

(1) Remedial actions where the remedial investigation commenced after the promulgation of these regulations; and

(2) Removal actions where the action memorandum is signed after the promulgation of these regulations.

(e) For those response actions not included in paragraph (d) of this section, the lead agency shall comply with this subpart to the extent practicable.

§ 300.805 Location of the administrative record file.

(a) The lead agency shall establish a docket at an office of the lead agency or other central location at which documents included in the administrative record file shall be located and a copy of the documents included in the administrative record file shall also be made available for public inspection at or near the site at issue, except as provided below:

(1) Sampling and testing data, quality control and quality assurance documentation, and chain of custody forms, need not be located at or near the site at issue or at the central location, provided that the index to the administrative record file indicates the location and availability of this information.

(2) Guidance documents not generated specifically for the site at issue need not be located at or near the site at issue, provided that they are maintained at the central location and the index to the administrative record file indicates the location and availability of these guidance documents.

(3) Publicly available technical literature not generated for the site at issue, such as engineering textbooks, articles from technical journals, and toxicological profiles, need not be located at or near the site at issue or at the central location, provided that the literature is listed in the index to the administrative record file or the literature is cited in a document in the record.

(4) Documents included in the confidential portion of the administrative record file shall be located only in the central location.

(5) The administrative record for a removal action where the release or threat of release requires that on-site removal activities be initiated within hours of the lead agency's determination that a removal is appropriate and on-site removal activities cease within 30 days of initiation, need be available for public inspection only at the central location.

(b) Where documents are placed in the central location but not in the file located at or near the site, such documents shall be added to the file located at or near the site upon request, except for documents included in paragraph (a)(4) of this section.

(c) The lead agency may make the administrative record file available to the public in microform.

§ 300.810 Contents of the administrative record file.

(a) Contents. The administrative record file for selection of a response action typically, but not in all cases, will contain the following types of documents:

(1) Documents containing factual information, data and analysis of the factual information and data that may form a basis for the selection of a response action. Such documents may include verified sampling data, quality control and quality assurance documentation, chain of custody forms, site inspection reports, preliminary assessment and site evaluation reports, ATSDR health assessments, documents supporting the lead agency's determination of imminent and substantial endangerment, public health evaluations, and technical and engineering evaluations. In addition, for remedial actions, such documents may include approved work plans for the remedial investigation/feasibility study, state documentation of applicable or relevant and appropriate requirements, and the RI/FS;

(2) Guidance documents, technical literature, and site-specific policy memoranda that may form a basis for the selection of the response action. Such documents may include guidance on conducting remedial investigations and feasibility studies, guidance on determining applicable or relevant and appropriate requirements, guidance on risk/exposure assessments, engineering handbooks, articles from technical journals, memoranda on the application of a specific regulation to a site, and memoranda on off-site disposal capacity;

(3) Documents received, published, or made available to the public under § 300.815 for remedial actions, or § 300.820 for removal actions. Such documents may include notice of availability of the administrative record file, community relations plan, proposed plan for remedial action, notices of public comment periods, public comments and information received by the lead agency, and responses to significant comments;

(4) Decision documents. Such documents may include action memoranda and records of decision;

(5) Enforcement orders. Such documents may include administrative orders and consent decrees; and

(6) An index of the documents included in the administrative record file. If documents are customarily grouped together, as with sampling data chain of custody documents, they may be listed as a group in the index to the administrative record file.

(b) Documents not included in the administrative record file. The lead agency is not required to include documents in the administrative record file which do not form a basis for the selection of the response action. Such documents include but are not limited to draft documents, internal memoranda, and day-to-day notes of staff unless such documents contain information that forms the basis of selection of the response action and the information is not included in any other document in the administrative record file.

(c) Privileged documents. Privileged documents shall not be included in the record file except as provided in paragraph (d) of this section or where such privilege is waived. Privileged documents include but are not limited to documents subject to the attorney-client, attorney work product, deliberative process, or other applicable privilege.

(d) Confidential file. If information which forms the basis for the selection of a response action is included only in a document containing confidential or privileged information and is not otherwise available to the public, the information, to the extent feasible, shall be summarized in such a way as to make it disclosable and the summary shall be placed in the publicly available portion of the administrative record file. The confidential or privileged document itself shall be placed in the confidential portion of the administrative record file. If information, such as confidential business information, cannot be summarized in a disclosable manner, the information shall be placed only in the confidential portion of the administrative record file. All documents contained in the confidential portion of the administrative record file shall be listed in the index to the file.

§ 300.815 Administrative record file for a remedial action.

(a) The administrative record file for the selection of a remedial action shall be made available for public inspection at the commencement of the remedial investigation phase. At such time, the lead agency shall publish in a major local newspaper of general circulation a notice of the availability of the administrative record file.

(b) The lead agency shall provide a public comment period as specified in § 300.430(f)(3) so that interested persons may submit comments on the selection of the remedial action for inclusion in the administrative record file. The lead agency is encouraged to consider and respond as appropriate to significant comments that were submitted prior to the public comment period. A written response to significant comments submitted during the public comment period shall be included in the administrative record file.

(c) The lead agency shall comply with the public participation procedures required in § 300.430(f)(3) and shall document such compliance in the administrative record.

(d) Documents generated or received after the record of decision is signed shall be added to the administrative record file only as provided in § 300.825.

§ 300.820 Administrative record file for a removal action.

(a) If, based on the site evaluation, the lead agency determines that a removal action is appropriate and that a planning period of at least six months exists before on-site removal activities must be initiated:

(1) The administrative record file shall be made available for public inspection when the engineering evaluation/cost analysis (EE/CA) is made available for public comment. At such time, the lead agency shall publish in a major local newspaper of general circulation a notice of the availability of the administrative record file.

(2) The lead agency shall provide a public comment period as specified in § 300.415 so that interested persons may submit comments on the selection of the removal action for inclusion in the administrative record file. The lead agency is encouraged to consider and respond, as appropriate, to significant comments that were submitted prior to the public comment period. A written response to significant comments submitted during the public comment period shall be included in the administrative record file.

(3) The lead agency shall comply with the public participation procedures of § 300.415(m) and shall document compliance with § 300.415(m)(3)(i) through (iii) in the administrative record file.

(4) Documents generated or received after the decision document is signed shall be added to the administrative record file only as provided in § 300.825.

(b) For all removal actions not included in paragraph (a) of this section:

(1) Documents included in the administrative record file shall be made available for public inspection no later than 60 days after initiation of on-site removal activity. At such time, the lead agency shall publish in a major local newspaper of general circulation a notice of availability of the administrative record file.

(2) The lead agency shall, as appropriate, provide a public comment period of not less than 30 days beginning at the time the administrative record file is made available to the public. The lead agency is encouraged to consider and respond, as appropriate, to significant comments that were submitted prior to the public comment period. A written response to significant comments submitted during the public comment period shall be included in the administrative record file.

(3) Documents generated or received after the decision document is signed shall be added to the administrative record file only as provided in § 300.825.

§ 300.825 Record requirements after decision document is signed.

(a) The lead agency may add documents to the administrative record file after the decision document selecting the response action has been signed if:

(1) The documents concern a portion of a response action decision that the decision document does not address or reserves to be decided at a later date; or

(2) An explanation of significant differences required by § 300.435(c), or an amended decision document is issued, in which case, the explanation of significant differences or amended decision document and all documents that form the basis for the decision to modify the response action shall be added to the administrative record file.

(b) The lead agency may hold additional public comment periods or extend the time for the submission of public comment after a decision document has been signed on any issues concerning selection of the response action. Such comment shall be limited to the issues for which the lead agency has requested additional comment. All additional comments submitted during such comment periods that are responsive to the request, and any response to these comments, along with documents supporting the request and any final decision with respect to the issue, shall be placed in the administrative record file.

(c) The lead agency is required to consider comments submitted by interested persons after the close of the public comment period only to the extent that the comments contain significant information not contained elsewhere in the administrative record file which could not have been submitted during the public comment period and which substantially support the need to significantly alter the response action. All such comments and any responses thereto shall be placed in the administrative record file.

SUBPART J -- USE OF DISPERSANTS AND OTHER CHEMICALS

§ 300.900 General.

(a) Section 311(c)(2)(G) of the Clean Water Act requires that EPA prepare a schedule of dispersants and other chemicals, if any, that may be used in carrying out the NCP. This subpart makes provisions for such a schedule.

(b) This subpart applies to the navigable waters of the United States and adjoining shorelines, the waters of the contiguous zone, and the high seas beyond the contiguous zone in connection with activities under the Outer Continental Shelf Lands Act, activities under the Deepwater Port Act of 1974, or activities that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States, including resources under the Magnuson Fishery Conservation and Management Act of 1976.

(c) This subpart applies to the use of any chemical agents or other additives as defined in Subpart A of this Part that may be used to remove or control oil discharges.

§ 300.905 NCP Product Schedule.

(a) Oil Discharges. (1) EPA shall maintain a schedule of dispersants and other chemical or biological products that may be authorized for use on oil discharges in accordance with the procedures set forth in § 300.910. This schedule, called the NCP Product Schedule, may be obtained from the Emergency Response Division (OS-210), U.S. Environmental Protection Agency, Washington, D.C. 20460. The telephone number is 1-202-382-2190.

(2) Products may be added to the NCP Product Schedule by the process specified in § 300.920

(b) Hazardous Substances Releases [Reserved]

§ 300.910 Authorization of use.

(a) The OSC, with the concurrence of the EPA representative to the RRT and, as appropriate, the concurrence of the RRT representatives from the states with jurisdiction over the navigable waters threatened by the release or discharge, and in consultation with the DOC and DOI natural resource trustees, when practicable, may authorize the use of dispersants, surface collecting agents, biological additives, or miscellaneous oil spill control agents on the oil discharge, provided that the dispersants, surface collecting agents, biological additives, or miscellaneous oil spill control agents are listed on the NCP Product Schedule.

(b) The OSC, with the concurrence of the EPA representative to the RRT and, as appropriate, the concurrence of the RRT representatives from the states with jurisdiction over the navigable waters threatened by the release or discharge, and in consultation with the DOC and DOI natural resource trustees, when practicable, may authorize the use of burning agents on a case-by-case basis.

(c) The OSC may authorize the use of any dispersant, surface collecting agent, other chemical agent, burning agent, biological additive, or miscellaneous oil spill control agent, including products not listed on the NCP Product Schedule, without obtaining the concurrence of the EPA representative to the RRT, the RRT representatives from the states with jurisdiction over the navigable waters threatened by the release or discharge, when, in the judgment of the OSC, the use of the product is necessary to prevent or substantially reduce a hazard to human life. The OSC is to inform the EPA RRT representative and, as appropriate, the RRT representatives from the affected states and, when practicable, the DOC/DOI natural resource trustees of the use of a product not on the Schedule as soon as possible and, pursuant to the provisions in paragraph (a) of this section, obtain their concurrence or their comments on its continued use once the threat to human life has subsided.

(d) Sinking agents shall not be authorized for application to oil discharges.

(e) RRTs shall, as appropriate, consider, as part of their planning activities, the appropriateness of using the dispersants, surface collecting agents, biological additives, or miscellaneous oil spill control agents listed on the NCP Product Schedule, and the appropriateness of using burning agents. Regional Contingency Plans (RCPs) shall, as appropriate, address the use of such products in specific contexts. If the RRT representatives from the states with jurisdiction over the waters of the area to which a RCP applies and the DOC and DOI natural resource trustees approve in advance the use of certain products under specified circumstances as described in the RCP, the OSC may authorize the use of the products without obtaining the specific concurrences described in paragraph (a) and (b) of this section.

§ 300.915 Data requirements.

(a) Dispersants. (1) Name, brand, or trademark, if any, under which the dispersant is sold.

(2) Name, address, and telephone number of the manufacturer, importer, or vendor.

(3) Name, address, and telephone number of primary distributors or sales outlets.

(4) Special handling and worker precautions for storage and field application. Maximum and minimum storage temperatures, to include optimum ranges as well as temperatures that will cause phase separations, chemical changes, or other alterations to the effectiveness of the product.

(5) Shelf life.

(6) Recommended application procedures, concentrations, and conditions for use depending upon water salinity, water temperature, types and ages of the pollutants, and any other application restrictions.

(7) Dispersant Toxicity -- Use standard toxicity test methods described in Appendix C to Part 300.

(8) Effectiveness -- Use standard effectiveness test methods described in Appendix C to Part 300. Manufacturers are also encouraged to provide data on product performance under conditions other than those captured by these tests.

(9) Flash Point -- Select appropriate method from the following: ASTM--D 56-87; ASTM--D 92-85; ASTM--D 93-85; ASTM--D 1310-86; ASTM--D 3278-82.[1]

(10) Pour Point -- Use ASTM--D 97-87.[1]

(11) Viscosity -- Use ASTM--D 445-86.[1]

(12) Specific Gravity -- Use ASTM--D 1298-84.[1]

(13) pH -- Use ASTM--D 1293-85.[1]

(14) Dispersing Agent Components. Itemize by chemical name and percentage by weight each component of the total formulation. The percentages will include maximum, minimum, and average weights in order to reflect quality control variations in manufacture or formulation. In addition to the chemical information provided in

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[1] 1988 Annual Book of ASTM Standards. American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies may be obtained from the publisher. Copies may be inspected at the U.S. Environmental Protection Agency, 401 M St., S.W., Room LG, Washington, D.C., or at the Office of the Federal Register, 1100 L Street, N.W., Room 8401, Washington, D.C.

response to the first two sentences, identify the major components in at least the following categories: surface active agents, solvents, and additives.

(15) Heavy Metals, Cyanide, and Chlorinated Hydrocarbons. Using standard test procedures, state the concentrations or upper limits of the following materials:

(i) Arsenic, cadmium, chromium, copper, lead, mercury, nickel, zinc, plus any other metals that may be reasonably expected to be in the sample. Atomic absorption methods should be used and the detailed analytical methods and sample preparation shall be fully described.

(ii) Cyanide. Standard calorimetric procedures should be used.

(iii) Chlorinated hydrocarbons. Gas chromatography should be used and the detailed analytical methods and sample preparation shall be fully described.

(16) The technical product data submission shall include the identity of the laboratory that performed the required tests, the qualifications of the laboratory staff, including professional biographical information for individuals responsible for any tests, and laboratory experience with similar tests. Laboratories performing toxicity tests for dispersant toxicity must demonstrate previous toxicity test experience in order for their results to be accepted. It is the responsibility of the submitter to select competent analytical laboratories based on the guidelines contained herein. EPA reserves the right to refuse to accept a submission of technical product data because of lack of qualification of the analytical laboratory, significant variance between submitted data and any laboratory confirmation performed by EPA, or other circumstances that would result in inadequate or inaccurate information on the dispersing agent.

(b) Surface Collecting Agents. (1) Name, brand, or trademark, if any, under which the product is sold.

(2) Name, address, and telephone number of the manufacturer, importer, or vendor.

(3) Name, address, and telephone number of primary distributors or sales outlets.

(4) Special handling and worker precautions for storage and field application. Maximum and minimum storage temperatures, to include optimum ranges as well as temperatures that will cause phase separations, chemical changes, or other alterations to the effectiveness of the product.

(5) Shelf life.

(6) Recommended application procedures, concentrations, and conditions for use depending upon water salinity, water temperature, types and ages of the pollutants, and any other application restrictions.

(7) Toxicity -- Use standard toxicity test methods described in Appendix C to Part 300.

(8) Flash Point -- Select appropriate method from the following: ASTM--D 56-87; ASTM--D 92-85; ASTM--D 93-85; ASTM--D 1310-86; ASTM--D 3278-82.[1]

(9) Pour Point -- Use ASTM--D 97-87.[1]

(10) Viscosity -- Use ASTM--D 445-86.[1]

(11) Specific Gravity -- Use ASTM--D 1298-84.[1]

(12) pH -- Use ASTM--D 1293-85.[1]

(13) Test to Distinguish Between Surface Collecting Agents and Other Chemical Agents.

(i) Method Summary -- Five milliliters of the chemical under test are mixed with 95 milliliters of distilled water and allowed to stand undisturbed for one hour. Then the volume of the upper phase is determined to the nearest one milliliter.

(ii) Apparatus.

(A) Mixing Cylinder: 100 milliliter subdivisions and fitted with a glass stopper.

(B) Pipettes: Volumetric pipette, 5.0 milliliter.

(C) Timers.

(iii) Procedure -- Add 95 milliliters of distilled water at 22°C, plus or minus 3°C, to a 100 milliliter mixing cylinder. To the surface of the water in the mixing cylinder, add 5.0 milliliters of the chemical under test. Insert the stopper and invert the cylinder five times in ten seconds. Set upright for one hour at 22°C, plus or minus 3°C, and then measure the chemical layer at the surface of the water. If the major portion of the chemical added (75 percent) is at the water surface as a separate and easily distinguished layer, the product is a surface collecting agent.

(14) Surface Collecting Agent Components. Itemize by chemical name and percentage by weight each component of the total

formulation. The percentages should include maximum, minimum, and average weights in order to reflect quality control variations in manufacture or formulation. In addition to the chemical information provided in response to the first two sentences, identify the major components in at least the following categories: surface action agents, solvents, and additives.

(15) Heavy Metals, Cyanide, and Chlorinated Hydrocarbons. Follow specifications in paragraph (a)(15) of this section.

(16) Analytical Laboratory Requirements for Technical Product Data. Follow specifications in paragraph (a)(16) of this section.

(c) Biological Additives. (1) Name, brand, or trademark, if any, under which the additive is sold.

(2) Name, address, and telephone number of the manufacturer, importer, or vendor.

(3) Name, address, and telephone number of primary distributors or sales outlets.

(4) Special handling and worker precautions for storage and field application. Maximum and minimum storage temperatures.

(5) Shelf life.

(6) Recommended application procedures, concentrations, and conditions for use, depending upon water salinity, water temperature, types and ages of the pollutants, and any other application restrictions.

(7) Statements and supporting data on the effectiveness of the additive, including degradation rates, and on the test conditions under which the effectiveness data were obtained.

(8) For microbiological cultures, furnish the following information:

(i) Listing of all microorganisms by species.

(ii) Percentage of each species in the composition of the additive.

(iii) Optimum pH, temperature, and salinity ranges for use of the additive, and maximum and minimum pH, temperature, and salinity levels above or below which the effectiveness of the additive is reduced to half its optimum capacity.

(iv) Special nutrient requirements, if any.

(v) Separate listing of the following, and test methods for such determinations: Salmonella, fecal coliform, Shigella, Staphylococcus Coagulase positive, and Beta Hemolytic Streptococci.

(9) For enzyme additives furnish the following information:

(i) Enzyme name(s).

(ii) International Union of Biochemistry (I.U.B.) number(s).

(iii) Source of the enzyme.

(iv) Units.

(v) Specific Activity.

(vi) Optimum pH, temperature, and salinity ranges for use of the additive, and maximum and minimum pH, temperature, and salinity levels above or below which the effectiveness of the additive is reduced to half its optimum capacity.

(vii) Enzyme shelf life.

(viii) Enzyme optimum storage conditions.

(10) Laboratory Requirements for Technical Product Data. Follow specifications in paragraph (a)(16) of this section.

(d) Burning Agents. EPA does not require technical product data submissions for burning agents and does not include burning agents on the NCP Product Schedule.

(e) Miscellaneous Oil Spill Control Agents. (1) Name, brand or trademark, if any, under which the miscellaneous oil spill control agent is sold.

(2) Name, address, and telephone number of the manufacturer, importer, or vendor.

(3) Name, address, and telephone number of primary distributors or sales outlets.

(4) Special handling and worker precautions for storage and field application. Maximum and minimum storage temperatures, to include optimum ranges as well as temperatures that will cause phase separations, chemical changes, or other alternatives to the effectiveness of the product.

(5) Shelf life.

(6) Recommended application procedures, concentrations, and conditions for use depending upon water salinity, water temperature, types and ages of the pollutants, and any other application restrictions.

(7) Toxicity -- Use standard toxicity test methods described in Appendix C to Part 300.

(8) Flash Point -- Select appropriate method from the following: ASTM--D 56-87; ASTM--D 92-85; ASTM--D 93-85; ASTM--D 1310-86; ASTM--D 3278-82.[1]

(9) Pour Point -- Use ASTM--D 97-87.[1]

(10) Viscosity -- Use ASTM--D 445-86.[1]

(11) Specific Gravity -- Use ASTM--D 1298-84.[1]

(12) pH -- Use ASTM--D 1293-85.[1]

(13) Miscellaneous Oil Spill Control Agent Components. Itemize by chemical name and percentage by weight each component of the total formulation. The percentages should include maximum, minimum, and average weights in order to reflect quality control variations in manufacture or formulation. In addition to the chemical information provided in response to the first two sentences, identify the major components in at least the following categories: surface active agents, solvents, and additives.

(14) Heavy Metals, Cyanide, and Chlorinated Hydrocarbons. Follow specifications in paragraph (a)(15) of this section.

(15) For any miscellaneous oil spill control agent that contains microbiological cultures or enzyme additives, furnish the information specified in paragraphs (c)(8) and (c)(9) of this section, as appropriate.

(16) Analytical Laboratory Requirements for Technical Product Data. Follow specifications in paragraph (a)(16) of this section.

§ 300.920 Addition of products to schedule.

(a) To add a dispersant, surface collecting agent, biological additive, or miscellaneous oil spill control agent to the NCP Product Schedule, the technical product data specified in § 300.915 must be submitted to the Emergency Response Division (OS-210), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460. If EPA determines that the required data were submitted, EPA will add the product to the schedule.

(b) EPA will inform the submitter in writing, within 60 days of the receipt of technical product data, of its decision on adding the product to the schedule.

(c) The submitter may assert that certain information in the technical product data submissions is confidential business information. EPA will handle such claims pursuant to the provisions in 40 CFR Part 2, Subpart B. Such information must be submitted separately from non-confidential information, clearly identified, and clearly marked "Confidential Business Information." If the submitter fails to make such a claim at the time of submittal, EPA may make the information available to the public without further notice.

(d) The submitter must notify EPA of any changes in the composition, formulation, or application of the dispersant, surface collecting agent, biological additive, or miscellaneous oil spill control agent. On the basis of this data, EPA may require retesting of the product if the change is likely to affect the effectiveness or toxicity of the product.

(e) The listing of a product on the NCP Product Schedule does not constitute approval of the product. To avoid possible misinterpretation or misrepresentation, any label, advertisement, or technical literature that refers to the placement of the product on the NCP schedule must either reproduce in its entirety EPA's written statement that it will add the product to the NCP Product Schedule under § 300.920(b), or include the disclaimer shown below. If the disclaimer is used, it must be conspicuous and must be fully reproduced. Failure to comply with these restrictions or any other improper attempt to demonstrate the approval of the product by any NRT or other U.S. Government agency shall constitute grounds for removing the product from the NCP Product Schedule.

DISCLAIMER

> [PRODUCT NAME] is on the U.S. Environmental Protection Agency's NCP Product Schedule. This listing does NOT mean that EPA approves, recommends, licenses, certifies, or authorizes the use of [product name] on an oil discharge. This listing means only that data have been submitted to EPA as required by Subpart J of the National Contingency Plan, § 300.915.

Subpart K - Federal Facilities [Reserved]

3. Units 1.0, 2.0, and 4.0 of Appendix C to Part 300 are amended by revising the first sentence of subunit 1.1, and subunits 2.5 (step 13), and 2.6 (steps 15 and 16) and IX, and adding reference 4 to the list of references to read as follows:

Appendix C to Part 300 - Revised Standard Dispersant Effectiveness and Toxicity Tests

* * * * *

1.0 Introduction

1.1 Scope and Application. These methods apply to "dispersants" involving Subpart J (Use of Dispersants and Other Chemicals) in 40 CFR Part 300 (National Oil and Hazardous Substances Pollution Contingency Plan).* * *

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2.0 Revised Standard Dispersant Effectiveness Test

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2.5

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13. Spectrophotometrically determine the absorbance of the extract using the identical wavelength and cell used to calibrate the spectrophotometer. From the calibration curve, determine the concentration of oil in the chloroform.

Compute the concentration of oil in the sample as follows:

$$C_{do} = \frac{C_1 \text{ X (volume of chloroform used)}}{\text{(volume of sample)}} \qquad (2)$$

where:

C_{do} is the concentration of dispersed oil in the sample and
C_1 is the measured concentration of oil in the chloroform extract.

Note that the standard sample volume is 500 ml and the volume of chloroform used should also be expressed in ml.

Repeat steps 1 through 13 at least three times for each of the three required volumes of dispersant.

2.6

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15. Spectrophotometrically determine the absorbance of the extract using the identical wavelength and cell used to calibrate the spectrophotometer. From the calibration curve, determine the corresponding concentration of oil in the chloroform. Compute the dispersant blank correction for 25 ml of dispersant as follows:

$$D = \frac{C_2 \text{ X (volume of chloroform used)}}{\text{(volume of sample)}} \qquad (3)$$

where:

D is the blank correction for 25 ml of dispersant, and
C_2 is the measured concentration of oil in the chloroform extract.

Note that the standard sample volume is 500 ml and the volume of chloroform used should also be expressed in ml.

The Dispersant Blank Correction (DBC) for other volumes of dispersant used in a test may then be computed as:

$$\text{DBC} = \frac{D \text{ X (volume in ml of dispersants used)}}{25 \text{ ml}} \qquad (4)$$

16. Clean the test tank and prepare the synthetic seawater at 23$\pm$1°C as described in Step 1. Do not install the containment cylinder. Prepare 100 ml of test oil as described in Steps 4 and 5, and add it to the test tank. Continue the test procedure as described in Steps 8 through 13. The Oil Blank Correction (OBC) is:

$$\text{OBC} = \frac{C_1 \text{ X (volume of chloroform used)}}{\text{(volume of sample)}} \qquad (5)$$

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4.0 Summary Technical Product Test Data Format

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IX. Physical Properties of Dispersant/Surface Collecting Agent (4):

1. Flash Point: (°F).
2. Pour Point: (°F).
3. Viscosity: _____ at _____ °F (centistokes).
4. Specific Gravity: _____ at _____ °F.
5. pH: (10 percent solution if hydrocarbon based).
6. Surface Active Agents (Dispersants).[1]
7. Solvents (Dispersants).[1]
8. Additives (Dispersants).
9. Solubility (Surface Collecting Agents).

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[1] If the submitter claims that the information presented under this subheading is confidential, this information should be submitted on a separate sheet of paper clearly labeled according to the subheading and entitled "Confidential Information."

4. Appendix D is being added to Part 300 to read as follows:

Appendix D to Part 300 -- Appropriate Actions and Methods of Remedying Releases

(a) This Appendix D to Part 300 describes types of remedial actions generally appropriate for specific situations commonly found at remedial sites and lists methods for remedying releases that may be considered by the lead agency to accomplish a particular response action. This list shall not be considered inclusive of all possible methods of remedying releases and does not limit the lead agency from selecting any other actions deemed necessary in response to any situation.

(b) In response to contaminated soil, sediment, or waste, the following types of response actions shall generally be considered: removal, treatment, or containment of the soil, sediment, or waste to reduce or eliminate the potential for hazardous substances or pollutants or contaminants to contaminate other media (ground water, surface water, or air) and to reduce or eliminate the potential for such substances to be inhaled, absorbed, or ingested.

(1) Techniques for removing contaminated soil, sediment, or waste include the following:

(i) Excavation.

(ii) Hydraulic dredging.

(iii) Mechanical dredging.

(2) Techniques for treating contaminated soil, sediment, or waste include the following:

(i) Biological methods, including the following:

(A) Treatment via modified conventional wastewater treatment techniques.

(B) Anaerobic, aerated, and facultative lagoons.

(C) Supported growth biological reactors.

(D) Microbial biodegradation.

(ii) Chemical methods, including the following:

(A) Chlorination.

(B) Precipitation, flocculation, sedimentation.

(C) Neutralization.

(D) Equalization.

(E) Chemical oxidation.

(iii) Physical methods, including the following:

(A) Air stripping.

(B) Carbon absorption.

(C) Ion exchange.

(D) Reverse osmosis.

(E) Permeable bed treatment.

(F) Wet air oxidation.

(G) Solidification.

(H) Encapsulation.

(I) Soil washing or flushing.

(J) Incineration.

(c) In response to contaminated ground water, the following types of response actions will generally be considered: elimination or containment of the contamination to prevent further contamination, treatment and/or removal of such ground water to reduce or eliminate the contamination, physical containment of such ground water to reduce or eliminate potential exposure to such contamination, and/or restrictions on use of the ground water to eliminate potential exposure to the contamination.

(1) Techniques that can be used to contain or restore contaminated ground water include the following:

(i) Impermeable barriers, including the following:

(A) Slurry walls.

(B) Grout curtains.

(C) Sheet pilings.

(ii) Permeable treatment beds.

(iii) Ground water pumping, including the following:

(A) Water table adjustment.

(B) Plume containment.

(iv) Leachate control, including the following:

(A) Subsurface drains.

(B) Drainage ditches.

(C) Liners.

(2) Techniques suitable for the control of contamination of water and sewer lines include the following:

(i) Grouting.

(ii) Pipe relining and sleeving.

(iii) Sewer relocation.

(d)(1) In response to contaminated surface water, the following types of response actions shall generally be considered: elimination or containment of the contamination to prevent further pollution, and/or treatment of the contaminated water to reduce or eliminate its hazard potential.

(2) Techniques that can be used to control or remediate surface water include the following:

(i) Surface seals.

(ii) Surface water diversions and collection systems, including the following:

(A) Dikes and berms.

(B) Ditches, diversions, waterways.

(C) Chutes and downpipes.

(D) Levees.

(E) Seepage basins and ditches.

(F) Sedimentation basins and ditches.

(G) Terraces and benches.

(iii) Grading.

(iv) Revegetation.